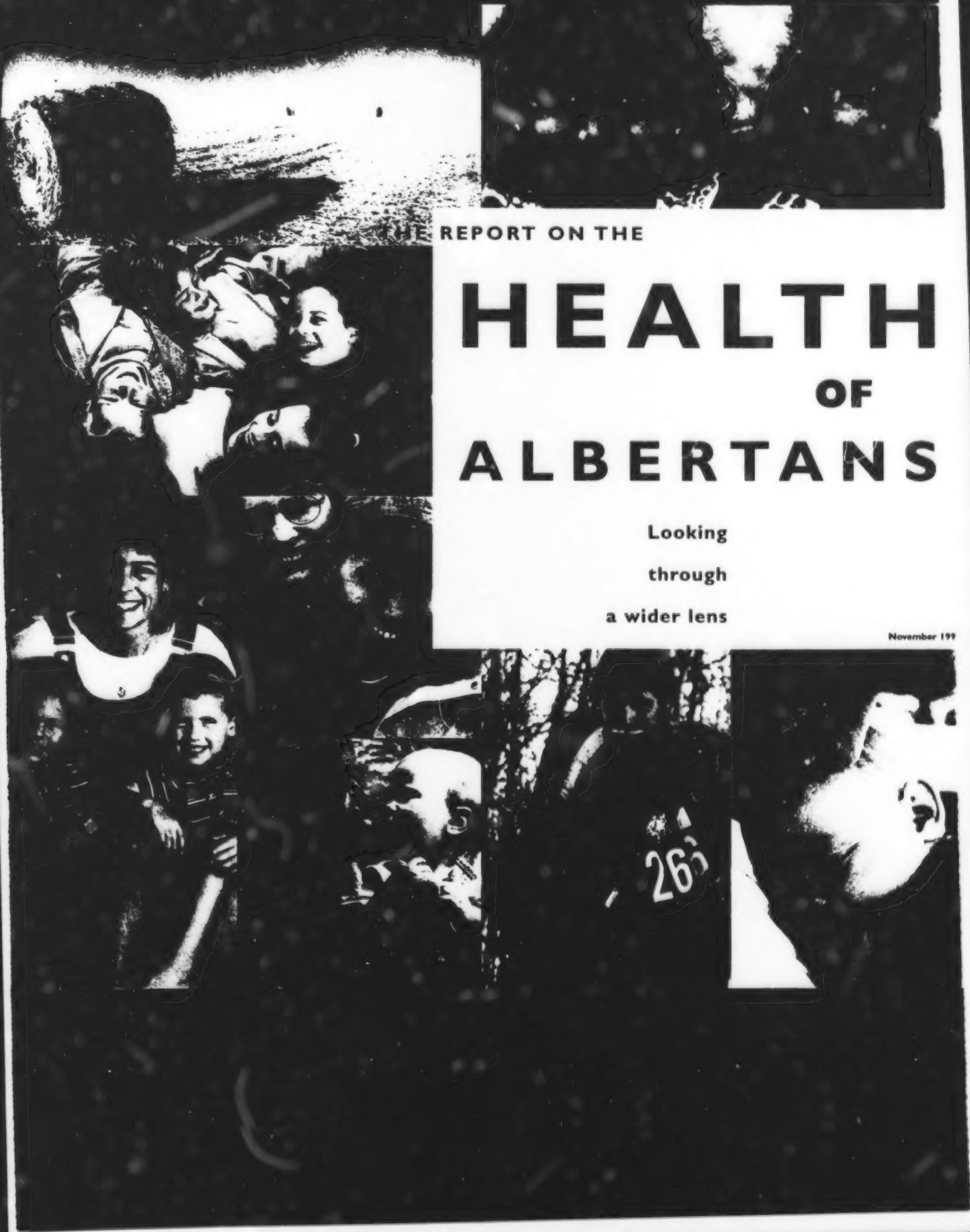

REPORT ON THE

HEALTH OF ALBERTANS

Looking through a wider lens

November 199

REGIONAL HEALTH AUTHORITIES IN ALBERTA

For those interested in more detailed information, a list of sources has been provided at the end of the report. In addition, Alberta Health and Wellness produces a number of technical reports and comprehensive information on selected topics. The following publications should prove helpful.

Health Trends in Alberta: A Working Document (April 1998)

Alberta Reproductive Health: Pregnancy Outcomes (April 1999)

Maternal Risk Factors in Relationship to Birth Outcomes (July 1999)

The 1999 Survey about Health and the Health System in Alberta (July 1999)

Alberta Ministry of Health Annual Report 1998/99 (September 1999)

The Alberta Health and Wellness web site also provides a comprehensive list of on-line publications.
(www.health.gov.ab.ca/public/index.html)

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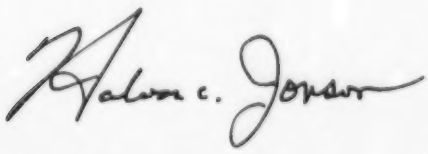
MESSAGE FROM THE MINISTER OF HEALTH AND WELLNESS

Albertans have consistently said they want to know about the health of Albertans and about what's happening with our health system. Health is vitally important to every aspect of our lives, and it is important for us to track information about the key things that are causing our health to get better, or worse.

Looking through a wider lens has a broad focus. It provides Albertans – individuals, health regions, community members and business leaders – with a wealth of information about the health of people across the province. We hope it provides a basis for thinking about health from a wide perspective, and encourages people to look at things that make us sick or healthy, not just today and tomorrow, but over our lifetimes and the lifetimes of our children.

By tracking health information, Alberta Health and Wellness can see where actions are needed to improve health. This commitment to continuous improvement in the health of Albertans is a key component of the Alberta Health and Wellness business plan. Each year, we consider information similar to what is included in this report and use that information to guide our strategies, determine where changes are needed, and set new targets for performance.

I encourage people to read the report, ask questions, think about health in their communities, and to take action individually and collectively to improve their own health and the health of all Albertans.



Halvar Jonson
Minister of Health and Wellness

THE PROVINCIAL HEALTH OFFICER HIGHLIGHTS
KEY HEALTH TRENDS

Ask about health in Alberta, and most often the focus is on immediate issues. If I need heart surgery, how long will I have to wait? If my mother falls and breaks a hip, will she get the treatment she needs right away? If a teenager gets hurt in a car collision on a rural highway, will an ambulance get there quickly enough to save his or her life?

These issues are critical, and they affect individuals in Alberta every day.

But if we want to take steps to improve the overall health of Albertans - and we do - not only do we need to address these issues, but we also need to "look through a wider lens." That means stepping back from the day-to-day health issues that affect individuals and looking at the state of health of Albertans as a whole. It means looking at the factors that affect the health of the population and discovering why health status differs from group to group.

HIGHLIGHTS

What key points can Albertans take from reading this year's report? Here are some of the highlights.

- Overall, Albertans are healthy. We are living longer and healthier lives, and fewer babies are dying before their first birthdays – important markers of health status.
- While in the past people died primarily from infectious diseases, today people live longer but often with chronic diseases and conditions like respiratory disease, arthritis and dementia.
- The leading causes of death in Alberta are heart disease, cancer, respiratory disease, stroke and injuries.
- Smoking is the leading cause of preventable illness, disability, and death – over 3,400 smoking-related deaths occur in Alberta every year. That's 20% of all deaths.
- Alberta's fatality rates from unintentional injury (injury due to things like motor vehicle collisions and falls) and rates of suicide are disturbing. In both cases, our rates are higher than the Canadian average, and the impact on people's lives and on the health system is dramatic. Injuries are no accident – they can be prevented, disabilities can be avoided, and lives can be saved.
- Aboriginal Albertans, on average, do not live as long as the rest of the population, although over the last 15 years the difference in life span has narrowed from 9 to about 7 years. Aboriginal Albertans also have much higher rates of injury and suicide. These serious issues demand attention.
- Poverty has a pervasive impact on the health of adults and children. For children in particular, poverty increases the risk of health problems, injuries and mental illness, and can compromise their future health. About one in eight Alberta children live in low-income situations.
- It's essential to keep a careful watch on Alberta's environment. While we're fortunate to have a healthy environment today, a growing economy and population will put increasing pressure on the environment.

Photo provided courtesy of the Provincial Archives of Alberta

A public health nurse weighs a baby as part of a 1928 clinic run by the Edmonton Department of Health. Over the past decades, the health of Alberta's children has improved dramatically as a result of such advances as regular immunization and improved living conditions. This report has a special focus on children's health as well as a wealth of information on the health of all Albertans.

This report is for anyone interested in the health of Albertans, particularly those working in government, in leadership positions in health authorities, and in a wide variety of community agencies and organizations. The purpose of this report is to describe current health trends in Alberta and factors that affect health over time. The report also identifies key areas where action can be taken, such as tobacco use, injury prevention, children's health, and environmental health.

To track changes in Albertans' health over time, similar reports will be prepared approximately every three years. We hope this and future reports will set the stage for long-term actions involving not just the health system but people in communities, in families, in schools, and in the workplace. And we hope these reports become catalysts for specific actions and strategies to improve health, especially the health of Alberta's children.

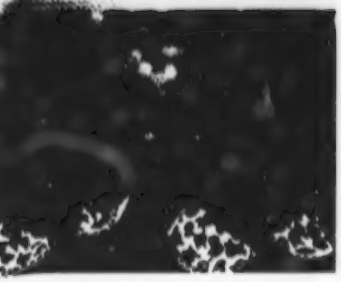
In this report, you'll find out how Albertans rate their health. You'll find information about the impact on health of an aging population and of Alberta's environment. You'll learn about the leading causes of illness and death, and about mental health. You'll find a special focus on Alberta's children.

Consistent with the idea of looking through a wider lens, key events in Alberta's history have been woven into the report. Recalling history reminds us how things change. It also reminds us how important it is to take a long-term view in addressing today's most pressing health issues.

There is a wealth of information included in this report, and we encourage people to skim through it, find the sections they are most interested in, and learn more about Albertans' health.

John L. Waters

Dr. John Waters
Provincial Health Officer



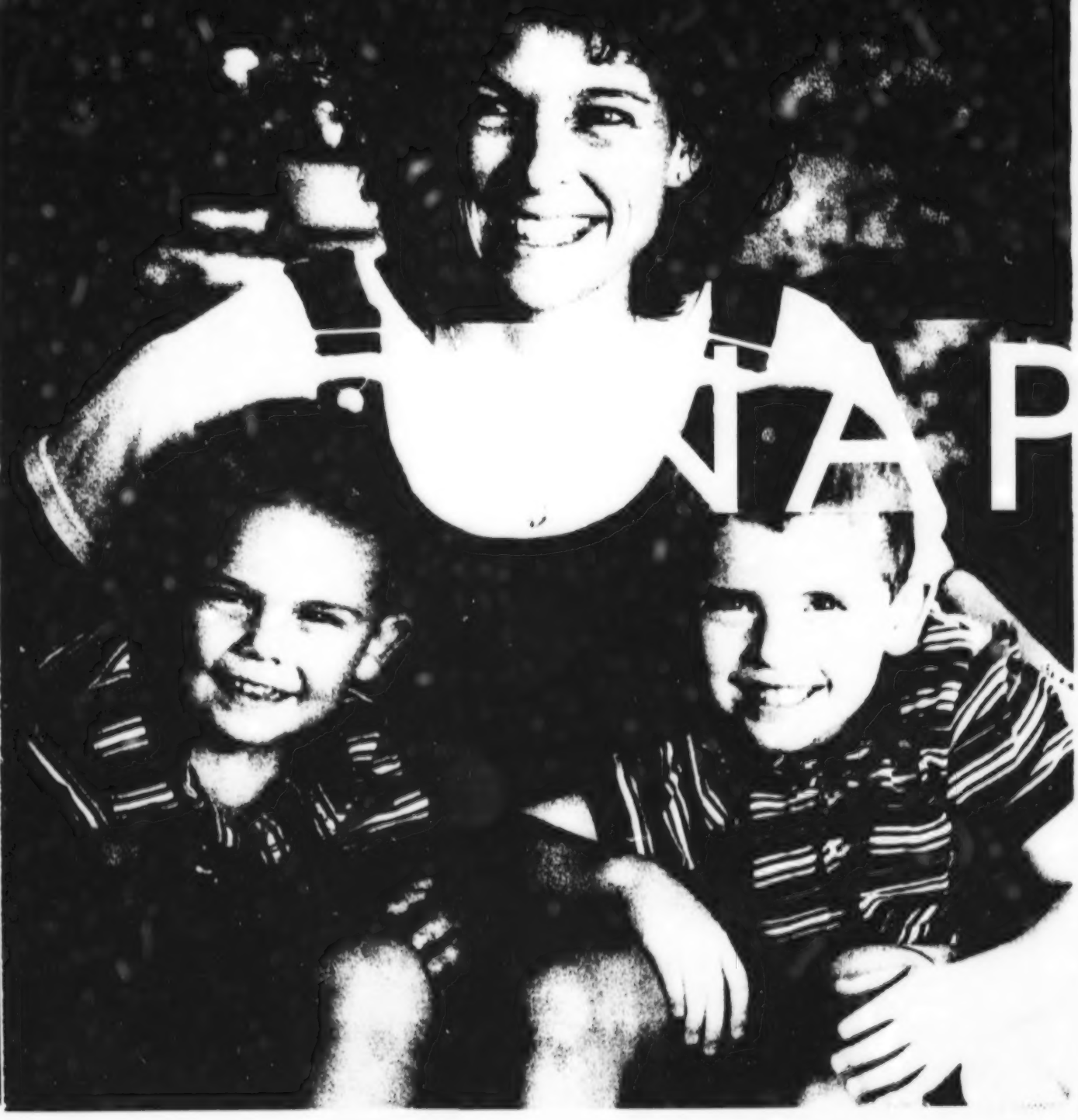
Many factors contribute to our own health and the health of our families. Using a wider lens – taking what is called a population health approach to consider Albertans' health – starts with basic demographics – things like population growth, aging of the population, and the proportions of old and young, male and female.

LOOKING

THROUGH A WIDER LENS

This approach combines that basic information with a look at health, the burden of illness and injuries and the leading causes of death. It takes into account factors such as income and social status, education and employment, and the health system. It includes lifestyle and behaviour, the kinds of choices we make every day that can have an impact on our health – good and bad. It considers factors that can be a hazard to health, such as the environment where we live and work. In short, just about everything that can and does have an impact on the overall health of Albertans is part of a population health approach.

Most important, this wider population health approach points to areas where actions can and should be taken over time to improve health. Some examples of actions already underway are included at the end of this report.


AP

Let's start with the basics. What are the key facts about Alberta's population and what do these facts mean for health now and in the future?

SHOT

OF ALBERTANS

ALBERTA'S POPULATION IS GROWING.

Alberta's population continues to grow, and that means continuing pressures on the health system and the need to plan health strategies for a diverse population.

In 1906, one year after Alberta became a province, Alberta's total population was just over 185,000. Today, Alberta's population stands at almost 2.9 million with nearly equal numbers of men and women, and it's growing. In 1998, Alberta's population growth was the fastest among the provinces and we were one of only two provinces with more people moving into the province from other parts of Canada, rather than leaving. Projections are for Alberta's population to grow to 3.75 million by 2016. That's the same as adding the current population of the Calgary Health Region!

Most Albertans live in cities. In fact, the Capital and Calgary regions are home to 59% of all Albertans. Almost half of Alberta's 156,000 Aboriginal people live in cities. More people are living in cities than in rural communities, and this trend is likely to continue.

ALBERTANS COME FROM ALL OVER THE WORLD.

Albertans come from different cultures and religious backgrounds. Different attitudes toward health have an impact on how health services are planned and delivered.

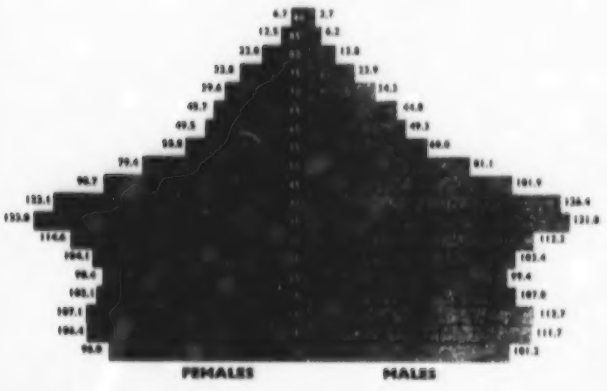
Alberta welcomes thousands of people each year from different parts of the world. According to the 1996 federal census, about 15% of Alberta residents are immigrants.

Newcomers - who bring with them a rich cultural legacy - also bring unique health histories. These histories may include exposure to war or military conflict, or to very different environments and the infectious diseases common to them. National studies suggest that recent immigrants to Canada have above-average health. These realities are being considered in planning health strategies for an increasingly diverse population.

Where do most Albertans come from? Our backgrounds are quite a mix. In 1996, just under 1.4 million Albertans said they had a single ethnic origin, but more than one million Albertans said they had multiple ethnic origins. Most said their origin was European, followed by Canadian, British, East and Southeast Asian.

ALBERTA POPULATION
1998 (in thousands)

TOTAL=2,854,621



Source: Alberta Health and Wellness (1999). Registration file.
1998 mid-year population estimates.

WE'RE YOUNG... BUT WE'RE GETTING OLDER!

Aging affects everything – not only our bodies and minds, but also families, lifestyle choices, medical treatments, demands on the health system, economics, and ethics. Aging affects society as a whole.

Compared with other provinces, we have the youngest population in Canada. But we are aging. Today, 10% of Albertans are over 65 compared with 22% who are under 15. Nationally, 12% of Canadians are over 65 and 20% are under 15. The aging trend is due partly to people living longer, but mostly to far fewer babies being born.

Alberta's Aboriginal population is much younger than the general population. About 37% are under 15; only 2.5% of Aboriginal people are over 65.

Even though Alberta's population is aging, we're still very young compared to other countries around the world. In the United Kingdom, 15.7% of the population is over 65. That compares with Japan at 14.5% and Sweden at 17.5%.

Looking ahead to 2016, the number of people aged 65 and over is expected to increase to about 500,000 – about 13.5% of the population. If we look within the senior's group, we see that the oldest seniors are increasing as a proportion of all seniors. In Alberta, just over 1 in 5 seniors is 80 or older. After age 80, older women outnumber older men by a ratio of about 2 to 1 – an important trend for those planning care and support for seniors.

Research demonstrates that healthy aging is possible. The common perception is that the next generation of seniors – the baby boomers – will be the healthiest, best educated, highest income and longest living group of seniors ever. This could mean less demand for health services, but it could also mean high expectations for the quality of care. It is important to balance discussions about increased need for health care with an understanding that many seniors are healthy and active, and they intend to stay that way! Seniors also make important contributions to health in Alberta through volunteer work and support for their family and friends.

Dr. Frank Haley, 74, of Edmonton is one of a growing number of Alberta seniors. He competes yearly in the Birkebeiner, a cross-country skiing event where he carries a 5.5-kilogram pack over the 55-kilometre route. Like many other Alberta seniors, he is in excellent health, living independently, staying mentally and physically active, and contributing to his family and community.

FAMILIES ARE CHANGING.

Families are important to our health, providing us with everything from support and comfort to learning and social opportunities. And we place a high value on family life. When asked, "What is important in life?" 92% of Albertans ranked "a happy family life" as number one, ahead of a clean environment, good income, and a successful career (Alberta Families Today, 1992).

Alberta- and Canada-wide trends point to smaller families, delayed marriages, more families that are "blended" with children from previous marriages living together, families living in cities rather than rural communities, and more women in the labour force. In families where the parents work outside the home, stress and implications for care of young children are often issues.

In 1996, federal census reports noted there were almost 718,000 families in Alberta. By far, the majority of families - 87% - included two parents. But the number of single-parent families is increasing - from almost 83,000 in 1991 to 92,500 in 1996. Women are the lone parents in over 82% of those families. More so than two-parent families, single-parent families often face problems of poverty, poor housing, time constraints, loneliness, health concerns, and worry over the future. These can all have a huge impact on health.

37,609 babies were born in 1998. And while that might seem like a lot, the number is down considerably from 1985 when 43,314 babies were born in the province. Two things are happening. Fewer women are having 3 or more children, and women are delaying having their first child.

The family is the place where language is first learned; it is also the place where we learn our basic values and attitudes, traditions and customs, many basic skills, our way to assess and handle the world around us; and it is the place where we first learn to learn.

Source: The Vanier Institute of the Family (1976). Learning and Family: A Conceptual Framework on Learning, p. 25.

MOST ALBERTANS HAVE GOOD INCOMES... BUT SOME DO NOT.

Studies show that poverty is related to higher risk of poor health and early death. But surprisingly, even once basic needs are covered, income continues to have an impact on our health. Around the world, as people move up the rungs of the income ladder, they tend to have less sickness, longer life expectancies, and improved health.

FACTS ABOUT INCOME

While there is agreement about the importance of income distribution, there is far less consensus about the best way to measure poverty. The following facts illustrate some of the income challenges faced by some Albertans.

- Compared with people in other provinces, Albertans have the third-highest personal disposable income per person.
- 70% of Alberta's minimum wage earners are women.
- Based on Statistics Canada's low-income cut-off levels (LICOs), 20% of Canadians were considered low income in 1995. In Alberta the comparable figure was 18%. LICOs are income levels at which families spend 20% more than the average family on food, clothing and shelter.
- Preliminary 1996 data using the Market Basket Measure (MBM) suggest that 13% of Alberta children lived in low-income situations – the lowest percentage among the provinces. The Canadian average was 16%. The MBM is a new absolute measure of low income now in the final stages of development. It is based on the income needed to cover food, shelter and clothing and other necessary expenditures (such as the cost of personal care, transportation, telephone service, recreation and school supplies) to ensure a reasonable standard of living.
- About 220,000 children in the province live in families that receive the National Child Benefit Supplement. This suggests that 29% of children live in families where low income is, or threatens to be, an issue.
- For both the general population and the Aboriginal population, nearly 80% of income is from employment. But average income levels are about 50% lower for Aboriginal people. While Aboriginal people are increasingly moving into managerial, technical and professional jobs, most are still more likely to work in labour or unskilled jobs.

Canadian and international evidence supports the idea that it is the gap between rich and poor and income distribution, not average income, that greatly influences the health of a population. Exactly why this happens is only beginning to be understood, but it appears to relate to how our body's psychological, neurological and immune systems interact to respond to stresses related to being disadvantaged. The recent *Second Report on the Health of Canadians* (1999) notes that income inequality in Canada decreased slightly between 1985 and 1995.

Rates of employment and unemployment tell us about the health of Alberta's economy and are obviously related to income levels. Both employment and income influence the population's health. Unemployed people tend to have more health problems and lower life expectancy.

Unemployment levels declined over the last decade. In 1998, the average unemployment rate dropped to 5.7%, and Alberta led the country in job growth. While the decline in unemployment is welcome, averages can hide differences in rates for groups within the population. The unemployment rate for Aboriginal males is almost three times higher than the rate for non-Aboriginal males.

Looking ahead, the 1998 Alberta Survey conducted by the Population Research Laboratory at the University of Alberta shows that Albertans are optimistic about their future incomes. About 48% of people surveyed said they thought they'd be better off financially in the next year. Unfortunately, that optimism isn't shared by all Albertans. Almost 22% said they were worse off than the year before, and 11% said they expected their financial situation to get worse in the next year.

Studies suggest that the distribution of income in a given society may be a more important determinant of health than the total amount of income earned by society members. Large gaps in income distribution lead to increases in social problems and poorer health among the population as a whole.

Toward a Healthy Future – Second Report on the Health of Canadians (1999) p. ix.

WE'RE GETTING THE MESSAGE - STAY IN SCHOOL!

With rapid changes in society, a good education is increasingly important. People with less education are more likely to face low-paying and uncertain jobs, higher risks of occupational injury and a less rewarding work life. People with more education tend to have more job selection, higher incomes, a greater sense of control over their lives, and better health.

The good news is that compared with other Canadians, Albertans have the smallest percentage of people in the two lowest levels of literacy - those who have serious difficulties reading and those who can only read simple material. Compared to other provinces, Alberta has the second highest proportion of people who have completed high school and the third highest percentage of people who have completed post-secondary education (87% and 55% respectively).

For Aboriginal people, the proportion completing grade twelve and attending post-secondary education has risen in the past 20 years. But their average education level continues to be lower than the general population in Alberta. About 14% of Aboriginal Albertans have less than grade 9, compared with 7% in the general public. About 4% have a university degree, compared with 14% of the general population.

Ethan Collister, 17, of Calgary does well in school and plans to go on to post secondary education when he graduates. One recent survey showed that 63% of grade 12 students plan to go on to post-secondary education the following year. Most of the students said they were happy, hopeful and healthy.

HOW
HEALTHY

We've looked at the basic facts about Albertans. Now let's turn to some facts about our health. Generally, we enjoy good health. We tend to live long and healthy lives, and most of us report having very good or excellent health.

ARE WE?

But you'll also see from this section that Albertans are dying from preventable causes and that not all groups in the province enjoy optimal health status. These are areas we need to address.

Every day we make choices that affect our health, so we have included some facts about the choices Albertans make. For example, Albertans tend to get regular screening tests – an important part of prevention. However, too many of us, particularly in rural areas, don't use seat belts. These 'choices', rather than being carefully selected behaviours by individuals, are often the result of complex interactions between people and their living and working circumstances.

Access to quality health services and the physical environment also affect the health of Albertans. You will find information on these areas in this section. While we know that socioeconomic circumstances greatly affect health, we have limited Alberta information to support comprehensive policy and strategy development. So, while we wanted to show health, disease, and injury information from the perspective of socioeconomic status, it was not possible most of the time. This gap in understanding is important to fill, as those who are most disadvantaged typically experience the greatest burden of poor health.

HEALTH TIMELINE

Consistent with the idea of looking through a wider lens, key events in Alberta's history are woven throughout this section. Recalling history reminds us how important it is to take a long term view in addressing today's most pressing health issues.

1900s

1905 The Province of Alberta is born on September 1, 1905. The first election is held November 9, 1905.

Doctors in southern Alberta claim that regular outbreaks of typhoid experienced by many communities are due to the filthy water. They demand that the provincial government control pollution (particularly human waste) that is contaminating Alberta's rivers.

1906 Alberta's population is 185,412.

The Alberta legislature sets the provincial speed limit at 10 mph in the city and 20 mph in the country.

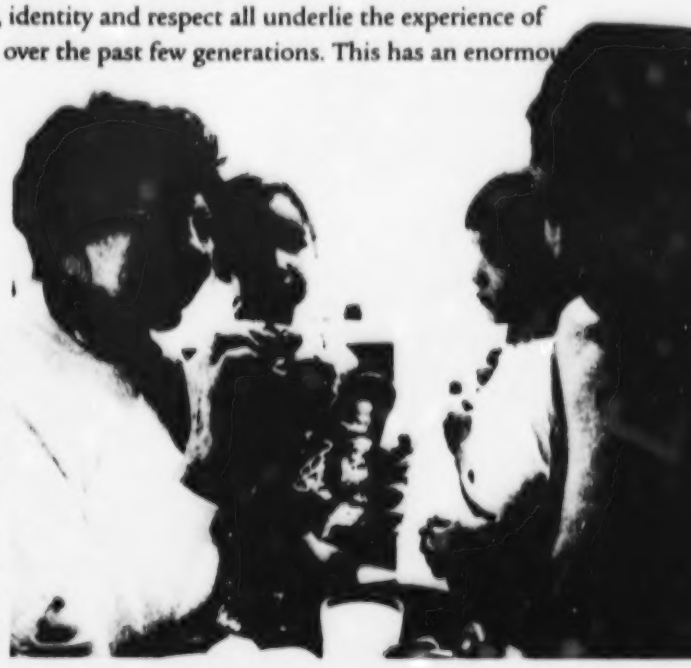
The first Provincial Medical Officer of Health is appointed. He reports outbreaks of smallpox, diphtheria, scarlet fever and typhoid fever.

The Alberta College of Physicians and Surgeons is established.

In Germany, neurologist Alois Alzheimer identifies a disorder that causes the progressive loss of intellectual functioning.

1907 The Public Health Act, Alberta's first health legislation, creates a Provincial Board of Health and local health authorities in each of the 10 provincial districts.

It's also very clear that Aboriginal Albertans face significant health issues. Overall, their health is not as good as that of the general public. While there have been gains in reducing infant mortality for Aboriginal Albertans, a lot more needs to be done. As the *1998 Aboriginal Consultation Task Force Report* notes, loss of culture, language, status, identity and respect all underlie the experience of being an Aboriginal person over the past few generations. This has an enormous impact on the health of Aboriginal people and has to be recognized as part of the healing process.



Alice Bolduc, program coordinator for the Mother Earth and Me Head Start Program, in Edmonton, chats with young students Eartha Good Striker, Shannelle Jimmy and Tempest Lapatac. Overall, Alberta's Aboriginal population faces significant health issues. One way to begin to tackle these issues is through early intervention programs such as Mother Earth and Me, where children learn about their culture, nutrition and health along with their ABCs.

WE'RE LIVING LONGER.

Thanks to a number of factors, Albertans are living longer, and most of their later years are spent in good health.

Life expectancy is used around the world as a basic indicator of overall health. It reflects the extent to which people are healthy and free of life-threatening illnesses, have adequate nutrition and access to health care, and live in an environment free of hazards that may shorten life. While this measure covers

the length of time lived, people are increasingly interested in the quality of the extra years that we are living. We don't have good measures yet, but preliminary information suggests that nearly 15%, or about 11 years, of an average Albertan's life span is lived in poor health.

Compared with people in other provinces and many countries around the world, Albertans can expect to live longer, and in most cases, healthier lives. Since 1921, with the passage of each decade, males have added about 2 years to their life span, females about 2.5 years. Today in Alberta, girls can expect to live at least 81 years and boys can expect to live for 76 years. That's almost the same as people in Sweden and Australia, but less than in Japan.

There are differences in life expectancies in different parts of the province. People in Edmonton and Calgary have the longest life expectancies. The lowest life expectancies are in the north, and the central regions of Alberta have life expectancies between these extremes.

For Aboriginal men and women, the story is not as positive. While we don't have Alberta information, national data show that in 1986, Aboriginal people's life expectancy was about 9 years less than the general public. More recent information suggests that the gap has been reduced to 7.4 years, but that's still a considerable difference.

What factors influence how long people live? Women can expect to live longer than men, although the gap has narrowed. Married people tend to live longer and so do people with higher incomes. Certainly heredity is a factor. More important is how well people take care of their own health.

Living longer is a plus for most people. But there are also some consequences. It means people need to manage their retirement over longer periods of time. They may have to adjust to the loss of a spouse and a long period of widowhood, or remarriage later in life. In the later stages of life, people have to cope with a transition to poorer health, frailty, perhaps the development of dementia, and the need for increasing amounts of care and health services. For the children of older people, looking after their parents for increasing lengths of time can mean added stress.

1910s

1910 Calgary women form a Tuberculosis Society to care for patients.

1911 A "Swatting the fly" campaign is launched in Edmonton. Flies could transmit disease, so housewives are urged to eliminate insects from their homes.

1914 Canada enters the First World War.

Alberta's population is about 470,000 – two-thirds are farmers.

On June 19, 1914, a devastating explosion rips through the Hillcrest Collieries mine in Alberta's Crowsnest Pass.

1915 Prohibition legislation is passed.

All school children in Alberta must be immunized against smallpox.

1916 Women in Alberta gain the right to vote.

1918-19 A worldwide influenza epidemic kills more than 25 million people. Over 38,000 Albertans contract flu – some 4,000 die. Quarantine is the only (ineffective) prevention.

1918 Alberta's Venereal Disease Prevention Act is passed.

1919 Department of Public Health Act is passed and A.G. MacKay becomes the first Minister of Health.

The Workmen's Compensation Board completes its first full year of operation.

1921 The leading causes of death for children 0-14 are congenital problems, infections and parasitic diseases like diarrhea, enteritis and pneumonia, diphtheria and violence. By 1997, the leading causes of death were congenital anomalies in the perinatal period in infants, and unintentional injury, suicide and cancer in school age children.

Life expectancy for men is 59 years, for women, 61 years.

Public health officials are alarmed to find a quarter of the milk cows in southern Alberta test positive for tuberculosis.

1922 Insulin is discovered by doctors F. G. Banting, C.H. Best, J. J. R. Macleod and Alberta's Dr. J. B. Collip. Shortly after, the government begins free distribution of insulin by mail to all diabetics.

1924 After eight years of prohibition, Alberta's Liquor Act is repealed.

1928 The Sexual Sterilization Act is passed – and a board known as the Eugenics Board is created. The Act is not repealed until 1972.

1929 The stock market crash on Wall Street marks the beginning of the Great Depression.

Women become persons under the law.

ALBERTANS RATE THEIR OWN HEALTH

Ask a question and people will tell you what they think! When we ask Albertans what they think about their own health, most give it a positive rating.

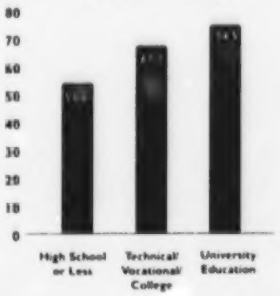
In the 1999 version of the annual survey done by Alberta Health and Wellness, 67% of Albertans aged 18 to 64 rated their health as very good or excellent. This percentage has been stable for the past 3 years but remains below the provincial target of 75%. Older people did not rate their health status as highly - which was not unexpected given the higher prevalence of chronic disease in this group. Only 43% of people aged 65 or older rated their health as very good or excellent.

Looking across the province and across income and education groups, survey responses pointed out important differences. In general, people in the southern part of the province tended to report better health status than did those living in northern Alberta. The two graphs show the relationship between education and income and health status ratings. Higher incomes and higher education levels are both significantly associated with higher health status ratings.

To get a balanced picture of health, we need measures that capture quality of life and well being - sometimes called positive indicators - as well as disease, illness, and injury-related

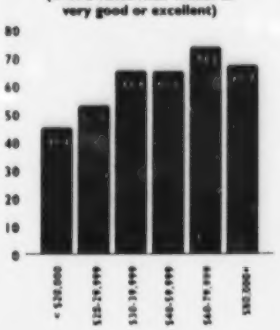
SELF-RATED HEALTH STATUS and EDUCATIONAL DIFFERENCES 1999

(% who rated their health as very good or excellent)



SELF-RATED HEALTH STATUS and HOUSEHOLD INCOME 1999

(% who rated their health as very good or excellent)



Source: Alberta Health and Wellness (1999) The 1999 Survey About Health and the Health System in Alberta. Special data run.

indicators. As positive indicators have only recently begun to be developed, and the data to construct them are not often available, it has not been possible to adequately represent this aspect of health. A recent Royal Bank/Angus Reid Quality of Life poll offers some understanding. It found that 62% of Albertans (the highest percentage in Canada) were very satisfied with their quality of life.

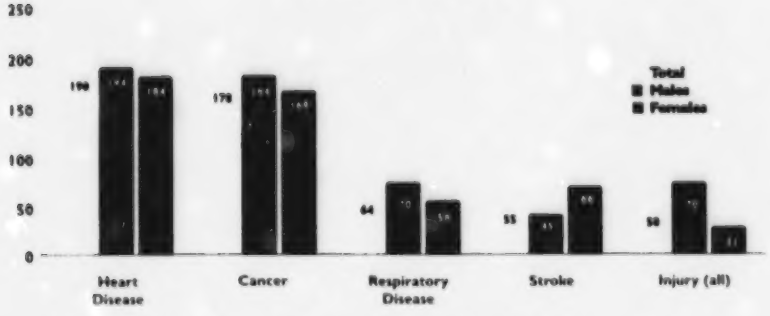
WHAT ARE THE LEADING CAUSES OF DEATH AND ILLNESS?

Taking a wider look at health over time shows that the leading causes of death have not changed much in the last 5 to 10 years. The top 5 causes are heart disease, cancer, respiratory disease, stroke and injury.

Over time, we can track trends in the leading causes of death and illness for Albertans and use that information to see what actions should be taken. When we talk about leading causes, we mean the causes of death, particularly premature death and deaths that occur very early in life and therefore rob us of productive members of society. We're also talking about health problems that require substantial health care resources and seriously affect people's health, and about important underlying causes of death and illness – like smoking.

TOP FIVE CAUSES OF DEATH 1997

(Standardized rate/100,000)



Source: Alberta Health & Wellness (1999). Epidemiological Measures Data Base. Special data run.

1930s

1930 Mental health clinics are opened across Alberta.

1931 Alberta's population is 732,000.

1936 The provincial government begins providing hospital care.

1937 Lakes go dry, fences and road allowances disappear under dust. Six million acres of land in the Palliser Triangle drift out of control.

1938 Metis Settlements are first established.

1939 For $25, a mother can have a bed in a maternity ward. This includes all costs for her 12-day stay.

Alberta Tuberculosis Association is formed.

1940s

1940 Cancer Treatment and Protection Act passes, enabling people to get free care.

1941 Schools across Alberta are ordered closed due to an epidemic of polio and sleeping sickness.

1944 Hospitalization for childbirth is provided free of charge.

1945 The Public Health Act allows municipalities to pass their own pasteurization bylaws. Pasteurization doesn't become mandatory in the province until 1991.

1946 The Common Sense Book of Baby and Child Care is published by Dr. Benjamin Spock.

1947 Imperial Oil taps into Leduc No. 1 oil well, marking the beginning of Alberta's oil rush.

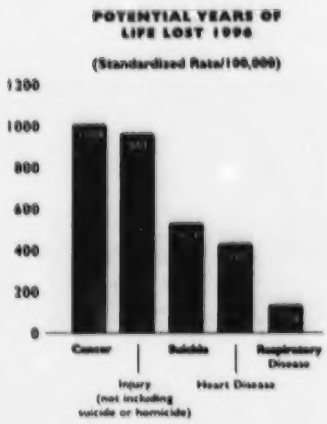
Canada faces a critical shortage of qualified nurses. Calgary doctors report that the lack of trained nursing staff is making it difficult to combat the city's polio epidemic.

1948 Diphtheria, pertussis and tetanus combined vaccine is introduced.

1949 Alberta's Liquor Control Board decides that "mixed drinking" – men and women enjoying an alcoholic beverage together – will not be permitted in the major cities of Calgary and Edmonton.

What do Albertans die from? In 1997, 16,230 Albertans died – 8,551 males and 7,679 females. The top 5 ranked causes were heart disease, cancer, respiratory disease, stroke, and injury from all causes (intentional and unintentional).

No one lives forever. But we want to live as long as possible in good health and prevent early deaths from causes we can do something about. If we count the number of years "lost" for all deaths that occur before age 70 and look at the reasons for these deaths, we see that cancer is the number one cause of premature death, followed by unintentional injury, then suicide.



Source: Health Canada (1999). Statistical Report on the Health of Canadians, p. 322.

The causes shown in the two previous charts are not only responsible for the majority of deaths, but also mean many visits to physicians and admissions to hospitals. In addition to these causes, we know that mental disorders will affect 20% of Albertans sometime in their lives, consuming many health system resources. Within the injury category, it is important to distinguish between unintentional injury (for example, falls and injury due to motor vehicle crashes), and intentional injury (for example, suicide and homicide) where mental disorders often play a role. We can't talk about leading causes of death without talking about smoking – it's a major risk factor for death and health problems from heart disease, cancer, respiratory disease, and stroke. Here's a snapshot of these serious problems.

Heart disease

Heart disease is the leading cause of death. It also accounts for the greatest number of admissions to hospital (once pregnancy-related reasons are excluded). Ischemic heart disease is the major cause within this category, and can lead to chest pain, heart failure, or heart attacks. Our rates of death from heart disease have been going down over the past 10 years and are lower than the Canadian average. It is important to remember that heart disease does not just affect men

or the elderly. It is an important cause of death and illness for women and for those under 65 years of age. In the 1996/97 National Population Health Survey, 3% of Albertans indicated that they had been told by a health professional that they had heart disease.

To reduce risk, people need to be aware of a family history of heart disease, of the implications of certain chronic diseases (especially diabetes), and of the need to avoid smoke and smoking. They need to eat a healthy diet and to maintain an active lifestyle and a healthy weight.

Cancer

The second leading cause of death is cancer. If we think about cancer from the view of premature death and causing the loss of productive years, it ranks number one. According to the Alberta Cancer Board, 1 in 3 Albertans will develop cancer in their lifetime, and 50% of those people will die from the disease within 5 years of being diagnosed. Because the risk of cancer increases with age, the burden of cancer disease will increase as our population ages. Currently, the number of new cases is increasing by 5% every year.

What are the lifetime odds?

For Alberta women, 1 in 9 will get breast cancer, 1 in 18 will get colorectal cancer and 1 in 21 will get lung cancer sometime in her life. For Alberta men, 1 in 8 will get prostate cancer, 1 in 16 will get colorectal cancer, and 1 in 11 will get lung cancer.

Source: Alberta Cancer Board, 1999

The patterns of cancer incidence and mortality in Canada tend to exhibit an east-west gradient, with the lowest rates typically found in British Columbia, Alberta, and Saskatchewan. Alberta is ranked third lowest in Canada (behind BC and Saskatchewan) for deaths due to all cancers. The variation across Canada likely reflects differences in risk factors (like smoking) and the availability of screening programs for different cancers.

1950s

1950 Bolstered by oil revenues, the province provides hospital care for a dollar a day.

1951 With the advent of television, Canadian parents are advised to be more concerned about their children's eyes.

Life expectancy for men is 68 years, and 72 years for women.

1953 1,458 cases of respiratory polio and 111 deaths occur.

1955 Dr. Jonas Salk's polio vaccine is proven to be safe and effective against polio. Alberta health officials announce that inoculation of over 40,000 Alberta school children begins within a week.

1956 First open-heart operation is done at the University of Alberta Hospital.

1958 The province joins the Federal Hospital Insurance Plan and takes over all hospital financing.

1960s

1961 Alberta's population is 1,332,000.

People of Aboriginal ancestry get the right to vote in Canada.

A new mother now leaves the hospital in 5, not 12, days.

1963 First pacemaker operation is done at the University of Alberta Hospital.

1964 The U.S. Surgeon General first warns that smoking can be hazardous to human health.

1965 The University of Alberta Hospital completes a cornea transplant.

1966 Fluoride is added to Edmonton drinking water.

Measles immunization begins.

1967 The Provincial Cancer Hospitals Board is formed to operate cancer treatment and research facilities in the province.

1968 Section 237 of the Criminal Code is amended and therapeutic abortions become legal.

1969 The Alberta Health Care Insurance Act is passed providing comprehensive prepaid health services.

Contraception is removed from the Criminal Code of Canada, taking away a major obstacle to family planning services.

The most commonly diagnosed cancer sites (excluding non-melanoma skin cancers) are prostate, lung and colorectal in men, and breast, lung and colorectal in women.

What are the lifetime odds? For Alberta women, 1 in 9 will get breast cancer, 1 in 18 will get colorectal cancer and 1 in 21 will get lung cancer sometime in her life. For Alberta men, 1 in 8 will get prostate cancer, 1 in 16 will get colorectal cancer, and 1 in 11 will get lung cancer. It is estimated that 50% of cancer cases and deaths could be prevented through elimination of tobacco use, improved diet, protection from overexposure to sunlight, and adequate screening for breast and cervical cancer.

Let's look at these cancers.

Breast cancer

Breast cancer is the most common type of cancer in women and accounts for 1 in 5 cancer deaths in Alberta women. Think about these facts:

- Breast cancer is the leading cause of premature death among Alberta women. Over 400 women in Alberta will die this year from breast cancer, and 1 in 5 will be less than 50 years old.
- About 1,500 Alberta women will be diagnosed with breast cancer this year.
- The number of breast cancer cases is increasing but the rate of death from breast cancer is going down.
- Women over 50 have the greatest risk of getting breast cancer. A family history of breast cancer can increase risk, but most women who develop breast cancer have no history of it in their families.
- Early detection improves the success of treatment. Regular mammography screening reduces breast cancer deaths by 30% for women aged 50 to 69. Over 80% of women say they perform breast self-examinations occasionally, but less than 35% say they do so on a monthly basis, as recommended.

Prostate cancer

Prostate cancer is the most commonly diagnosed type of cancer in men. In 1996, 1,348 new cases were diagnosed. While the number of new cases each year has risen sharply, the number of deaths (310 in 1996) increased only slightly and the age-standardized death rate is relatively stable. However, it is the second leading cause of cancer death in men. Most men diagnosed with this cancer will die of other causes because it tends to progress very slowly.

The use of tests to detect this disease is controversial because, while it leads to an increase in the number of cases found, there's no evidence that testing leads to fewer deaths or less suffering. As well, treatment for prostate cancer sometimes creates other problems, such as impotence and incontinence.

Smoking kills

- ***Smoking kills an estimated 3,400 Albertans each year – more than the number of people killed by heroin, cocaine, alcohol, AIDS, fires, murders, suicides, and motor vehicle crashes combined.***
- ***Smoking is related to 30% of all cancer and 85% of all new lung cancer cases. It is also a major contributor to heart and lung disease.***
- ***Second-hand smoke can cause lung cancer and heart disease in non-smokers. It also causes respiratory problems for children, and breathing problems and allergic reactions in the general population.***
- ***29% of Albertans over 15 smoke (31% of men, 27% of women, and 29% of Alberta teenagers).***

Sources: Alberta Cancer Board and Alberta Tobacco Reduction Alliance

Lung cancer

Lung cancer kills more men and women than any other form of cancer. In 1996, 1,250 Albertans (515 women and 735 men) were diagnosed with lung cancer and 1,052 people died from it. Most of these cases and deaths were due to tobacco smoke. Successful treatments and cure rates are low – 85% of people with lung cancer will die within 5 years of their diagnosis.

The increase in the number of women who smoke, seen over the last 3 decades, has translated into increasing rates of lung cancer for women. Both incidence and death rates for women are nearly 5 times higher than 1969 rates. Nevertheless, when Alberta is compared to other provinces, we have the lowest rate of lung cancer death in the country.

1970s

1971 The Alberta Government establishes the first Department of Environment in Canada.

1972 The Mental Health Act is introduced and the decade is marked by a shift to de-institutionalize the mentally ill.

1976 The Occupational Health and Safety Division is established within Alberta Labour.

The Farm Safety Program and Farm Accident Monitoring System (FAMS) is established.

1977 United Nurses of Alberta is established.

1978 The world's first test-tube baby is born in England.

Alberta's Home Care Program is introduced in health units.

1980 Alberta is the first province to establish fully accredited community mental health services.

The Alberta Heritage Foundation for Medical Research is established.

1982 A blow out of a sour gas well in Lodgepole causes a 67 day gas leak. Two people die and the gas plume extends for more than 400 km.

1983 AIDS becomes a reportable condition and the first Alberta case is reported.

The Alberta Widows' Pension Program is introduced to assist widows and widowers aged 55 to 64.

1984 The Canada Health Act is passed.

1987 On July 31, 1987 a tornado strikes the eastern part of Edmonton. 27 people die and 400 are left homeless.

Colorectal cancer

Colorectal cancer is the fourth most common cancer diagnosed and is ranked second for cancer deaths in men and women combined. In 1996, 222 women and 277 men died from colorectal cancer. Canada's rates for colorectal cancer are among the highest in the world. Regular exercise, limited alcohol consumption, and a diet high in fruits and vegetables are thought to lower the risk of colorectal cancer.

It is estimated that 50% of cancer cases and deaths could be prevented through elimination of tobacco use, improved diet, protection from overexposure to sunlight, and adequate screening for breast and cervical cancer.

Source: Alberta Cancer Board, 1999

Respiratory disease

We breathe in and out thousands of times each day. This ability is critical to life and should be natural and easy. The respiratory disease category includes problems like pneumonia, bronchitis, asthma, and emphysema. People with chronic respiratory conditions often live many years being short of breath and unable to do their usual activities.

Respiratory disease ranks third highest as a cause of death and as a reason for admission to hospital, and second with respect to the cost of physician visits generated. In 1997/98, 3,752 people were hospitalized for asthma alone. Again, smoking is an important causative factor for this group of diseases.

Stroke

Over the past decade, the death rate from stroke has declined in Alberta. However, 1996 data from *Toward a Healthy Future: Second Report on the Health of Canadians* (1999) show that Alberta's death rate due to stroke is slightly higher than the Canadian average. Strokes occur when blood doesn't flow to the brain, and brain cells die as a result. The major risks for stroke include high blood pressure, smoking, heart problems, high blood cholesterol, lack of physical activity, diabetes, and stress. Changing your lifestyle to minimize risk can help prevent strokes.

Injuries... there's an epidemic!

For too many Albertans, it's a case of an accident waiting to happen... but it's no accident! Injuries can be prevented. And some people say the rates of injuries in Alberta and across Canada are an epidemic.

In 1997, 1,342 people lost their lives prematurely because of injuries (all causes) - that's nearly 4 people every day. While injuries are the fifth leading cause of death overall, they are the leading cause of death for people aged 1 to 44, and second to cancer in the number of premature deaths caused. In 1997, injury from all causes accounted for 26,851 hospitalizations. The most common reason? Falls. They accounted for 37% of hospital admissions and 137 deaths. Who's falling? In the majority of cases, it's older people. And it is not a new problem. From 1983 to 1992, Alberta had the highest hospitalization rates of falls for seniors of all of the provinces.

Not only are injuries a serious health problem for the people involved, they also cost a lot. Nationally, three causes of injuries - falls, motor vehicle collisions, and poisoning - made up nearly 65% of the $8.7 billion associated with unintentional injuries during 1995/96.

Motor Vehicle Collisions

Every day in our province, someone dies and 68 people are injured as a result of motor vehicle collisions. There were 429 traffic fatalities in 1998, unchanged from the previous year. Alberta's fatality rates per 10,000 population outpace every other province except Prince Edward Island (PEI). However, Alberta ranks fourth in Canada when the death rate is calculated in terms of registered vehicles - the Yukon has the highest rate, followed by PEI and Saskatchewan. Looking over the past 5 years, death rates in Alberta, whether seen in terms of population or the number of licensed drivers or registered vehicles, have not changed.

In 1998 there were 98,601 collisions reported and nearly 25,000 people injured - increases of 6.8% and 4.3% respectively over 1997.

1990 Midwifery is legally recognized.

Alberta passes legislation establishing eight Metis Settlements and remains the only province where Metis people have rights over specified territories.

The new Mental Health Act includes the appointment of a Mental Health Patient Advocate.

1993 The Alberta Asthma Centre opens.

1994-95 Health reform is launched and includes establishing 17 Regional Health Authorities to replace over 200 separate boards and administrations.

1995 The Aboriginal Health Strategy for Alberta is launched to address inequities in the health status of Aboriginal people in the province.

Universal hepatitis B vaccine is introduced.

1997 Life expectancy for men is 76 years, and for women, 81 years.

1998 Alberta's population is 2,855,000.

HIV infection becomes a reportable disease.

The Alberta Centre for Injury Control and Research opens.

The Alberta Children's Initiative: An Agenda for Joint Action is tabled in the legislature.

Alberta leads Canada and the provinces with 45% of households having at least one member using the Internet.

1999 The Protection of Children Involved in Prostitution Act is proclaimed.

92% of Alberta's car drivers wear their seat belts. And 78% insist their passengers buckle up as well.

Sources: Transport Canada, and National Population Health Survey, 1996-97 cycle, special tabulations.

Who is having all these collisions? While persons in the age group 25 to 44 are involved in the most collisions, young men between 16 and 19 were most often involved in collisions where people were hurt or died. Of all fatally injured drivers, about 36% had consumed alcohol before the crash. Alcohol was also a factor for 6% of drivers involved in collisions where people were hurt.

While 4 out of 5 collisions happened in cities, 72% of fatal collisions occurred in rural Alberta. The highest number of fatalities occurred on Sunday, and Friday was the most collision-prone day. And watch out for the afternoon rush hour - almost 30% of all collisions occur then.

What causes all the crashes? People do. Driver error was a contributing factor in about 89% of all collisions. Following too close, running off the road (particularly in rural Alberta), and turning left across the flow of traffic were the most frequent problems. Also, more of us need to use seatbelts. The injury rate in 1998 for those who were wearing a restraint at the time of a collision was 14%, compared to 36% for those who did not. A 1998 survey by Transport Canada suggests that 92% of Alberta car drivers wear seat belts - virtually the same as the national rate.

Reducing deaths and injuries due to motor vehicle collisions requires a multi-disciplinary approach that includes focusing on drivers' knowledge, attitudes and behaviour, and applying enforcement and engineering solutions.

Workplace injury

Injuries also happen in the workplace. In 1998, the Workers' Compensation Board (WCB) reported about 126,000 claims. More than a quarter of these injuries were serious enough to keep workers off work for at least one day after they were injured. More than 25% of the workers injured had been on the job for less than 6 months, and the most common causes were overexertion and being struck by an object. In 1998, the WCB accepted 105 fatalities as work-related. With the exception of one worker, all the fatalities involved males.

Farm injuries

There were 1,621 farm injuries reported from the 70 rural monitoring hospitals in 1998. More than 75% of these injuries involved males. The most common type of injury involved lacerations, followed by bruises and fractures. Livestock contributed to 44%, and farm machinery contributed to 27% of all reported injuries. There were 22 deaths on Alberta farms in 1998.

These children took part in a rural safety camp in Camrose. Dozens of children are injured or killed in preventable rural accidents in Alberta every year. It was this realization that prompted Jan Fawcett, a public health nurse whose family farms in the High River area, to organize a rural family safety camp. The camp was such a success that a year later corporate sponsors helped launch a province-wide program.

Suicide

Alberta's suicide rate is the second highest among the provinces, after Quebec, at 14 per 100,000. In 1996, suicide ranked third highest as a cause of premature death. Many of these deaths affect young people and can be prevented. People between the ages of 25 and 44 committed 44% of all male suicides and 56% of all female suicides. For all ages, male suicides outnumber those by women by about 3 to 1, but women are more likely to make suicide attempts. In 1997, 303 men and 90 women committed suicide. Aboriginal Canadians, particularly young men, have an especially high rate of suicide, and some Aboriginal communities have suicide rates that are double the rates for the general population.

In order to address this serious problem, it is important to know that depression and substance abuse are strongly linked to suicide.

Mental illness strikes one in five Albertans during their lifetimes.

Good health is about a lot more than what happens to our bodies. Good mental health is vitally important to a person's overall health and wellness. It contributes to a sense of well being, and helps us function well and achieve our potential.

Mental illness presents an irony. On the one hand, if you ask Albertans about the causes and symptoms of mental illness, they are fairly well informed. But often, this knowledge doesn't translate into an acceptance or tolerance for mental

illness - even though almost everyone knows someone who has experienced mental illness. Rather the stigma is pervasive and destructive for those dealing with this problem.

Globally, mental illnesses make up 5 of the 10 leading causes of disability, including the first two - depression and alcohol abuse. In Alberta, mental illness ranks highest when physician costs are examined by category of disease. In 1997/98 over $75 million dollars were paid to physicians for the care of people with mental disorders. Mental illness is also an important reason for hospitalization; 1,875 Albertans were hospitalized because of depression alone in 1997/98. The number of deaths associated with mental illness - largely from psychoses and alcohol-related problems - was 414 in 1997. And that does not include deaths due to suicide.

Mental illness strikes more people than breast cancer, diabetes or Alzheimer's... and it's time we started talking about it and understanding what can be done.

What causes mental illness? A number of factors are involved, including biochemical processes in the brain, genes or heredity, reaction to trauma, and prolonged exposure to stressful situations. Stress by itself is not a mental illness, but if it gets out of control or lasts too long, it can lead to depression.

Examples of mental illnesses include clinical depression, anxiety disorders like post-traumatic stress disorder and panic disorder, personality disorders, schizophrenia, and bipolar disorders (formerly called manic-depressive illness).

Can mental illnesses be treated? Yes, in most cases. Early detection can lead to better outcomes. About 80% of people recover fully from depression.

People with mental illnesses become more distressed when they are ignored or patronized. In fact, many would say the stigma of mental illness can be worse than the illness itself.

This poster is part of the Alberta Mental Health Board's anti-stigma campaign. The theme of the campaign 'Mental Illness: You're already living with it. Now it's time to learn about it' is part of the AMHB's five-year project aimed at reducing the stigma surrounding mental illness.

The following selected facts and figures provide a snapshot of some of the factors that affect Albertans' mental health.

- On Statistics Canada's 1991 General Social Survey, 34% of women working full-time as part of a dual-earner family with children under ten years of age reported they were extremely "time-stressed".
- A 1992 national study by the Canadian Mental Health Association found that 47% of Canadians felt "really stressed... from a few times a week to all the time". One-third reported feeling "really depressed" once a month or more. On the 1994/95 National Population Health Survey (NPHS), 24% of Albertans reported chronic high levels of stress – slightly lower than the national average of 26%.
- On the 1996/97 NPHS:
  - 83% of Albertans reported having a high level of social support.
  - 7% of Albertans reported symptoms that indicated they likely experienced depression sometime during the year.
  - 73% of Albertans rated their ability to handle day-to-day demands as excellent or very good. The ratings were higher for people with higher incomes and lower for people who were over 75.
  - 59% rated their ability to handle unexpected or difficult problems as excellent or very good. People with lower incomes gave a lower rating for their ability to handle difficult problems.

Mental illness strikes more people than breast cancer, diabetes or Alzheimer's... and it's time we started talking about it and understanding what can be done.

WHAT ARE THE MOST COMMON ILLNESSES AND HEALTH PROBLEMS AND WHAT CHOICES ARE WE MAKING?

While some illnesses are unavoidable, research shows that making healthier choices can help improve health and reduce the risk of illness and injury. What are the leading illnesses and are we making healthy choices?

We've looked at some of the most serious conditions facing us. The following snapshots of health problems we report and the health choices we are making add to our understanding of the more common problems facing Albertans. For example, we see that for many of us asthma and arthritis are problems. We also see that there are areas, such as helmet and seat belt use, where we may need to do more to encourage and support healthy choices.

Health Problems for Albertans

Based on physician claims data, diabetes is a problem for about 2.7% of the general population and nearly 3.5% of the Treaty Status Aboriginal population. Close to 2,800 people ended up in hospital for treatment of diabetes in 1997/98.

Based on data from the 1996/97 National Population Health Survey:

- 7% of Albertans reported they have asthma. Over 3,700 people were hospitalized for asthma in 1997/98 and about half were under age 15. The rate of people being hospitalized for asthma has gone down over the last 5 years.
- 7% said they had migraine headaches.
- 8% of people reported having high blood pressure.
- 13% report having arthritis or rheumatism.
- 13% reported repetitive strain injuries.
- 14% said they had an injury that limited their normal activities in the past year.
- 15% said they had back problems.
- 18% reported that they had a long-term health problem that limited the amount of activity they could do, and 57% said they had a chronic condition diagnosed by a health professional.

Projections for 2011 show that half of Alberta's elderly (65+) will not have a disability, but 10.3% of elderly males and 11.5% of elderly females will have a severe disability.

On average, people aged 65 or over have 3 chronic medical conditions and may be taking several medications. As the number of drugs taken by an individual approaches 8, the risk for drug interaction approaches 100%. Research suggests these interactions account for significant health care services use and, in some cases, death.

Dementia is estimated to affect nearly 1 in 3 people aged 85 and over.

Rates of AIDS have been declining since 1994, mostly because new drugs prevent or slow the progression of HIV infection to AIDS. Unfortunately, there is no indication that there is a decline in the number of new HIV infections.

Rates of verotoxigenic *E.coli* (usually O157:H7), a form of bacterial diarrhea, were up in 1998. So were rates of salmonella, Hepatitis B and C, gonorrhea and giardiasis. Whooping cough continues to be a problem in many parts of Alberta. There were 762 cases in 1998.

Are we making healthy choices?

- **Smoking** – Fewer Albertans smoke than in the past, but according to the 1996/97 National Population Health Survey (NPHS) 28% of those aged 12 and older still do. And 21% of Alberta teens aged 12 to 19 were current smokers. According to the 1996/97 NPHS, 33% of Canadian children under the age of 12 are regularly exposed to environmental tobacco smoke. The proportion of smokers is highest among lower income Albertans. It is estimated that smoking costs the Alberta economy more than $728 million annually.
- **Motor Vehicle/Bicycle Safety** – 92% of Alberta car drivers wear their seat belts. And 78% insist their passengers buckle up as well. Only 36% of people say they always drive at or below the speed limit. From a bicycle-safety perspective, only 26% of bicyclists say they always wear a helmet. In 1997, 71 Albertans suffered a severe head injury because of a bicycle-related incident. Overall, motor vehicle and bicycle collisions are estimated to cost Alberta more than $3.5 billion annually when all costs are tallied.
- **Exercise and Healthy Weight** – Large parts of the population say they don't get enough exercise and have a body weight that's higher than the healthy range. While 65% of Albertans say they get regular physical exercise, only 43% of Albertans have a healthy body weight.
- **Regular Access to Preventive Screening** – Compared with other provinces, Albertans rank high in the proportion who report having regular medical screening tests to protect their health. The NPHS information shows that:
  - 84% of people reported having their blood pressure checked within the past two years.
  - 77% of women reported having a PAP test within the past three years, and 64% of women over 50 reported having a mammogram within the last two years.
  - 68% of Alberta women over 18 reported having a breast examination by a health professional in the past two years. Women with higher incomes tended to have a higher breast examination rate than women with lower incomes.
- **Drinking** – NPHS data also show that 77% of Albertans were current drinkers. The percentage is higher for men (82%) than for women (73%). The average number of drinks per week for current drinkers was 3.5, and it's higher for higher income groups, than for lower income groups, according to the Alberta Alcohol and Drug Abuse Commission (AADAC). Drinking doesn't have to be bad for our health. But the social and economic costs of alcohol misuse in Alberta add up to about $750 million every year.
- **Protection from HIV Infection** – 96% of Albertans say they know how to protect themselves from HIV. What we don't know is how many people act on that knowledge.
- **Use of Illegal Drugs** – 10% of adults (1997) and 16% of adolescents between 12 and 17 (1995) reported using marijuana. In 1995, 6% of the deaths investigated by the Medical Examiner were drug-related, including 74 overdoses. Since May 1, 1998, when HIV became reportable, injection drug use has been the leading risk factor associated with newly identified HIV infection in Alberta.
- **Gambling** – In 1998, AADAC reported that about 5% of Albertans aged 18 or older had mild to severe problems related to gambling. Among Aboriginal Albertans, the prevalence of problem gambling was found to be twice that of the general population, according to a 1994 study published by the Nechi Training, Research and Health Promotions Institute.

So far, this report has focused on health and wellness – looking at broad factors that affect health, leading causes of illness, injury and death, and considering the impact those trends and our own choices can have on our health and the health of Albertans. Now it's time to add other components to the picture – to look at how we use the health system and how the environment affects our health.

HOW DO ALBERTANS USE THE HEALTH SYSTEM?

- Based on 1996/97 National Population Health Survey (NPHS) information:
  - *On average, Albertans aged 12 and older visit their doctors 4 times a year – 3 visits for men and 5 for women.*
  - *22% of Albertans said they used emergency services in the past year.*
  - *74% of Albertans said they visited a dentist, 67% said they had a physical exam, and 59% of people said they had their eyes examined in the past 2 years.*
- In 1997/98, Albertans were admitted to hospital over 323,000 times.
- Alberta immunization coverage for children aged 2 is between 75% and 83% (depending on the vaccine) – well below the targets.
- About 180,000 ground ambulance trips occur each year, and over 6,000 Albertans are transferred by air ambulance.
- According to the Alberta Centre for Health Services Utilization, there has been a marked decrease in the rates of use of hospital services. This decrease has been accompanied by increased costs for home care and physician services. People aged 65 and older account for 43% of all inpatient hospital days, 71% of all home care clients, and 21% of physician services.
- Together, Calgary and Capital health regions serve 52% of the home care clients in the province. The number of Albertans receiving home care continues to rise.
- The number of people in long term care centres decreased between 1990 and 1996. Most of these people are over 75.
- The leading prescription drugs paid for by the provincial government are Losec – for ulcer treatment ($11.7 million), Pravachol – for lowering cholesterol ($4.5 million), and Norvasc – for high blood pressure ($3.5 million). On the NPHS, 67% of Albertans reported having insurance for medications – a tie with Nova Scotia for the highest percentage in Canada.

THE HEALTH SYSTEM

Studies show that Albertans make extensive use of different parts of the health system – from hospitals, to visiting the doctor, immunizing babies, getting care in the home or taking prescription drugs. And most give high marks for the services they receive.

Access to high-quality health services is an important factor in good health. Albertans have opinions about the quality of the health system and the kind of health care they receive. In 1997/98, over 2.4 million Albertans used the health system at least once. And generally they gave high marks for the services they received. In the 1999 Alberta Health and Wellness survey, 78% rated the quality of service they received personally as good or excellent. But that's down from 87% in past years.

74% rate the care they received in hospital as excellent or good, again lower than 1998 ratings (81%). Concerns about services in hospital related to long waits for service, lack of attention to needs, and lack of courtesy from staff. 75% of Albertans say the quality of services in their community is good or excellent, down from a 78% rating in 1998.

8.8% of Albertans said they were unable to get health care services they needed. The majority of Albertans - about 73% - say that it is easy or very easy to access the health services they need. But those who have high health needs tend to say they have more problems getting those services.

Overall, 57% of Albertans rate the health system as good or excellent - a figure that has been quite stable over the past three years. That's well below the provincial target of 75%.

ENVIRONMENTAL INFLUENCES ON HEALTH

We're fortunate to live in a healthy environment. But we can't take that good fortune for granted. A healthy environment and good health go together like hand and glove.

Good health depends on a healthy environment. In Alberta, we're fortunate to live in a healthy environment with few risks to our health on a day-to-day basis. Environmental health is involved in everything from tracking the impact of global concerns like climate change, checking drinking water supplies, investigating complaints about sub-standard housing, recalling contaminated foods, assessing the impact of environmental hazards on health... even inspecting tattoo parlors!

How healthy is Alberta's environment? It's difficult to measure and there are conflicting views. Public opinion often suggests that the condition of the environment is getting worse. But a recent study by the Fraser Institute suggests that overall environmental quality improved by 11% in Canada, 19% in the United States and 10% in the United Kingdom, compared with conditions in 1980. Air pollution has decreased significantly in these 3 countries.

In areas where the impact of the environment on health is more obvious - for example in safe food practices, water and air quality, and safe sewage management - we have accumulated a great deal of knowledge, and standards and monitoring programs are in place. Other areas are relatively new and complex. For example, we are just beginning to collect the data we need to look at how industrial and agricultural development[s] affect human health.

There are 3 main routes through which people are e[xposed] to potential environmental hazards that can have an impact on [h]ealth: breathing, eating or drinking, and skin contact. The chart on t[he] following page shows some of the potential links between conditions in th[e] environment and the health problems they can cause.

Volunteer Walter Neumann takes a test to measure lung capacity while field worker Anj Armstrong looks on. Mr Neumann was one of 300 Fort McMurray volunteers who took part in a unique study to find out more about the quality of the air they breathe. Volunteers wore personal exposure monitors to identify the levels of chemicals they breathe at work, at home and in the community. Information on their health was also collected through questionnaires, tests, daily dairies and other sources.

CONDITION/ PROBLEM	AIR POLLUTION (indoor & outdoor)	WASTE MANAGEMENT	CONTAMINATED WATER OR WATER MANAGEMENT PROBLEMS	CONTAMINATED FOOD OR FOOD-PROCESSING PRACTICES	BUILT ENVIRONMENTS	GLOBAL ENVIRONMENT CHANGE
Respiratory (lung) disease						
Skin or eye problems						
Diarrheal illness						
Other infections						
Cancer						
Cardiovascular disease						
Mental disorders						
Poisoning						

Adapted from The World Health Report 1998. (1998). Geneva: World Health Organization. p. 124

Air quality – inside and out – remains good.

Think about air pollution and most people automatically think about smog and poor quality outside air. But contact with air pollution can occur outdoors or in our homes and workplaces.

Although we don't know much about the level of indoor air pollution in Alberta, we do know that pollutants like carbon monoxide interfere with the blood's ability to carry oxygen, and therefore our ability to keep breathing. Children and older people are more affected by air pollutants because their respiratory systems are more vulnerable. Fungi, bacteria and viruses, and vapors from common household items like carpets and furniture can cause allergies and lung disease. However, smoke from cigarettes remains one of the most significant indoor pollutants.

With more efficient automobile engines, less dust on the roads and the removal of lead from gasoline, outdoor air quality in Edmonton and Calgary has improved over the past 20 years. Levels of sulphur dioxide and nitrogen dioxide have occasionally been over the guideline levels in the past few years, but the number of hours when that occurs is small and decreasing. The decline in lead emissions is a great success story, especially because lead is the most toxic of the main air pollutants.

According to Alberta Environment, in 1998 Alberta's air quality was rated good (the top rating on a four-point scale) on 354 days and fair on 11 days. There were no days when it was rated poor or very poor. The average number of days rated as fair over the past 12 years was 9.7, and was due to natural weather conditions.

Drinking water quality is good, but there are problems in some rivers and lakes.

The quality of surface water (in rivers and lakes) is important to monitor so that we know if it can be used for recreation, will sustain aquatic life, and be suitable for irrigation and watering stock. We also need to know what demand it will place on water treatment facilities. Concerns with water quality include the effects of discharges from industry and from major urban centres. The levels of contaminants, disease-causing bacteria, viruses and parasites are a concern because they must be removed to provide safe drinking water.

Throughout the province water is treated to reduce all types of contaminants to the levels set in the *Guidelines for Canadian Drinking Water Quality*. Over the years, the number of Albertans supplied with fully treated water – as opposed to partially or minimally treated water – has increased. In some areas fluoride is added to the water to help prevent tooth decay. It is estimated that 7 out of 10 Albertans drink fluoridated water.

Water and Recreation

In Alberta, rivers are the most common source of water. The quality of Alberta's rivers is generally good to fair. But water quality downstream of major urban centres on the North Saskatchewan, Bow and Oldman Rivers makes it unacceptable for recreational use. The Athabasca River is also considered unsuitable for recreational use. Water quality tends to be worse downstream of areas with significant urban, industrial, or agricultural development. Whitewater rafting, swimming and other activities in surface water with high bacterial counts put you at risk for many gastrointestinal illnesses, and skin problems like swimmer's itch.

Pesticides

Herbicides, insecticides and fungicides are important to the agricultural community and to those of us eating the food they supply. However, these chemicals can leach into rivers and streams and contaminate water. A recent study found that for 2 herbicides, levels in streams and irrigation canals in some areas of central and southern Alberta were sometimes elevated, but were not a concern for human health.

Food Safety

Every year, some Albertans suffer from stomach cramps, nausea, vomiting, and diarrhea due to food poisoning. They've eaten something that was contaminated with bacteria, mould, viruses, parasites, or chemicals. You may have heard "keep hot foods hot, cold foods cold, and don't contaminate one food source with another." This is important advice for avoiding food-borne illness.

Because not everyone who is sick seeks medical attention, we don't know exactly how many people get food poisoning. Salmonella bacteria cause most of the cases we do know about. Past outbreaks in the province due to salmonella have involved contaminated alfalfa sprouts, unpasteurized orange juice, and handling dog chews. The chart below shows the number of cases and the rates for two important contaminants: salmonella and verotoxigenic *E. coli* (VTEC) - commonly called Hamburger Disease.

	NUMBER OF CASES 1998	RATE PER 100,000 POPULATION	TREND OVER THE PAST THREE YEARS
Salmonella	**879**	**30.8**	**Increasing**
VTEC *E. coli*	**261**	**9.1**	**Increasing**

Source: Alberta Health & Wellness, Disease Control and Prevention (1999)

OTHER FACTS ABOUT ENVIRONMENTAL HEALTH

- We're getting the message. According to Alberta Environment, Alberta is making steady progress toward the goal of reducing municipal waste by 50% of the 1988 levels by the year 2000. In 1996, municipal waste had been cut to just over 73% of the 1988 levels.

- Over half of Albertans in a 1994 Statistics Canada survey on household environmental practices report they regularly purchase paper towels and toilet paper made from recycled paper. About a third regularly take their own bags when they go shopping. One in 5 said they use a compost heap or container and just over 20% have a water-saving low-volume toilet. But we still love our cars! Over 80% of Albertans drive their own cars to work, compared with 11% that use public transit, 2.4% who take a bike, and 7.4% who walk.

- Direct exposure to radiation from the sun's rays puts people at significant risk for skin cancer. Alberta Cancer Board information shows that in 1996, there were 371 cases of melanoma – the most dangerous form of skin cancer – and 46 people died. The number of melanoma cases is higher in southern Alberta (regions 1 through 5) than in the northern part of the province (regions 6 through 17).

- Intensive livestock production is increasing. Livestock produce a number of byproducts including potentially waterborne and airborne contaminants. The majority of large herds are located in southern Alberta. Producers, health officials, and Albertans need to work together to minimize the impact this practice may have on the environment and our health.

- The impact of solution gas flaring is not known, but health concerns have been raised. A recent study of the correlation between flaring activities and physician claims for asthma cases showed no relationship. However, this does not exclude the possibility of effects on human health. The total volume of contaminants from solution gas flaring increased between 1989 and 1993, but has decreased every year since then. A recent report from the Alberta Research Council found that the efficiency of some flares was only 60% to 70% compared with previous estimates of over 90%. This report has heightened concerns for people living close to the flares.

- The Provincial Health Officer continues to recommend that individuals limit the amount of wild game eaten from within a 30 kilometre radius of the Swan Hills Special Waste Treatment Centre. The advisory was issued following an air emissions release containing polychlorinated biphenyls (PCBs), dioxins, and furans at the Swan Hills Special Waste Treatment Centre in 1996. Wild game meat samples taken from near the Swan Hills Special Waste Treatment Centre were found to have elevated levels of PCBs, dioxins and furans. None of the levels detected in the wild meat samples were high enough to cause any immediate health problems. However, these toxic chemicals accumulate in the body over time. So it is prudent to limit consumption of game taken from within a 30 kilometer radius of the Swan Hills Special Waste Treatment Centre.

  Fortunately, two follow-up studies have shown that while there are still elevated levels of contaminants, there has been no detectable impact on human health.

- The Alberta Oilsands Community Exposure and Health Effects Assessment Program has recently been concluded in Fort McMurray. This program is a community/government/industry partnership that is addressing air quality and human health. It is the first study of its kind to take such a comprehensive look at air quality, personal exposure, and human health.

- Alberta has made a commitment to address climate change and to study greenhouse gas emissions and to help businesses, individuals and governments reduce emissions. Climate Change Central is the body that will coordinate Alberta's action on climate change.

Pick up almost any report on health these days and chances are good it will begin with a statement like, "The critical importance of a child's first years of life is overwhelming."

& YOUTH

We've always known that it's important for children to get a healthy start in life. But now, studies are confirming just how critical it is. What happens to children in their first 6 years largely determines how well they are able to learn in school, how well they can cope as adults, and often, how healthy they are as adults. Brain development from conception to 6 years sets a base for learning, behaviour, and health that lasts for life.

We also know that adolescence is a time of exciting potential and increased vulnerability socially and physically. It is a critical time for shaping young people's futures. This is when they take their first, and sometimes rocky, steps to independence. They begin to develop their identities, to sort out their strengths and weaknesses, establish their beliefs and values, and develop relationships and an understanding of their sexuality. The vast majority of Alberta youth make it through this stage very well, but some do not.

On the following few pages, we've outlined some facts and figures, trends and opinions on what happens to Alberta's children at different stages in their lives. But there are two over-riding factors that have an impact on children. One is poverty. Children who live in poverty face more challenges and are more likely to encounter serious problems throughout their lives than other

children. Those problems include a higher death rate, more chronic illnesses, more emotional and behavioural problems, more difficulty succeeding in school, higher rates of injury, and a higher risk of abuse and neglect.

The second overall factor is the environment. Children are especially vulnerable to risks in the environment. They grow and develop best in a safe environment – one that includes clean air, water and land, protection from crime and violence, and one where there is a low risk of injuries. It's the responsibility of all of us to provide a safe environment for Alberta's children.

In November 1998, the Government of Alberta declared its commitment to supporting the healthy development of children and youth. *The Alberta Children's Initiative: An Agenda for Joint Action* states the government-wide goal that Alberta's children are safe, well-cared for, successful at learning and healthy. It also provides inter-ministerial strategies for working towards these important goals.

A PROFILE OF ALBERTA'S CHILDREN AND YOUTH

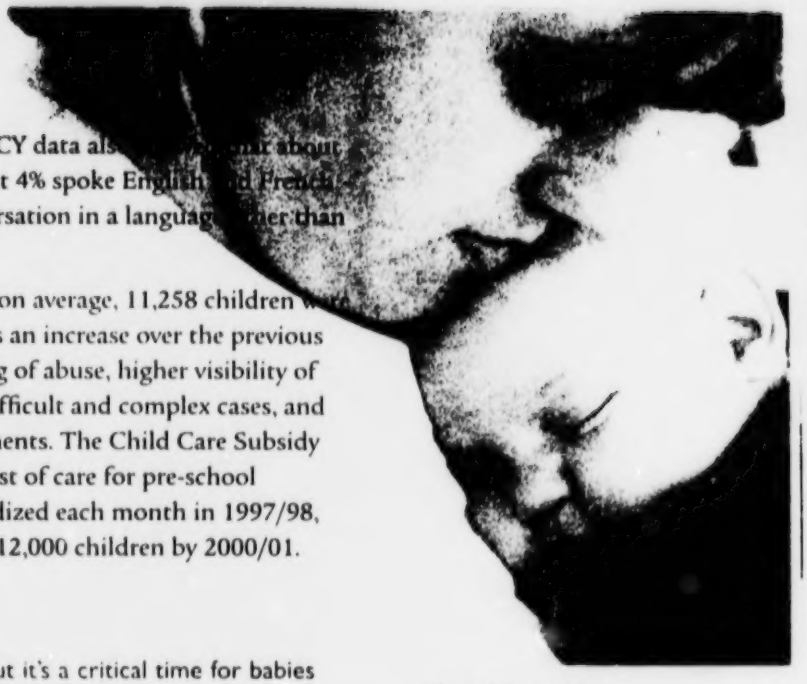
Let's start with the basic information. What do we know about the number of children and youth in the province and where they live?

In 1998, children and youth aged 19 years or less numbered over 840,000 and made up almost 30% of the total population. There were slightly more males (51%) than females (49%). Most of Alberta's children live in cities. In the two large urban regions – Calgary and Capital – children and youth aged 19 and under make up about 28% of the regional population. In the central and southern regions this percentage is higher, ranging from 29% in Headwaters to 34% in Lakeland. Two northern regions – Northwestern and Keeweetinok Lakes – have much higher proportions: 40% and 47% respectively.

According to information from the 1994/95 National Longitudinal Survey of Children and Youth (NLSCY), which obtained information about children aged 11 years and younger, over 80% of Albertans this age lived with their birth parents, just over 6% lived with a step-parent, and 12.5% lived with a single parent, almost always the mother. Labour Force Survey data show that nearly two-thirds of women aged 25 and older are employed – which has important

implications for the care of young children. NLSCY data als[illegible] about 83% of the children spoke English only and about 4% spoke English and French. About 9% of Alberta children could have a conversation in a languag[illegible]er than English or French.

Alberta Family and Social Services reported that on average, 11,258 children w[illegible] receiving child welfare services in 1997/98. That's an increase over the previous three years and may be due to increased reporting of abuse, higher visibility of available services in communities, increasingly difficult and complex cases, and new approaches such as in-home support agreements. The Child Care Subsidy program helps lower-income families with the cost of care for pre-school children. On average, 10,600 children were subsidized each month in 1997/98, and that number is projected to increase to over 12,000 children by 2000/01.



LiShelle Putnam, of Coleman, cuddles her young cousin Caitlin.

HEALTHY INFANTS

It's a short time from conception to 24 months, but it's a critical time for babies because it sets the stage for their health as they grow up.

What are the key things we know about the health of infants in their first few months of life?

Fewer babies die before their first birthday

For the past decade, the rate of infant mortality - babies dying before their first birthday - has declined consistently. In 1921, 86 out of every thousand infants died before their first birthday. By 1998, that rate had dropped to less than 5. But Alberta's rates have tended to be slightly higher than the Canadian average.

The drop in rates of infant deaths has been consistent across the province for the past 10 years. The Calgary Health Region tends to have lower infant mortality rates than the rest of the province.

What do babies die from? In 1997, 174 babies died in their first year of life, 100 boys and 74 girls. The most common causes of death were perinatal conditions (birth trauma, jaundice, infection), birth defects and sudden infant death syndrome (SIDS).

Low birth weight is a problem

Birth weight is an indicator of a baby's health. Babies who weigh less than 2,500 grams (5.5 pounds) are more likely to have birth-related complications, disabilities, birth defects, and other health problems. They also are more likely to have developmental delays, learning and behavioural problems, and long-term health problems. Birth weight is also a major factor in infant deaths. About 75% of babies who die in their first week of life were born with a low birth weight.

Over the past ten years, Alberta's rate of low birth weight babies has gone up and down. But in 1997, the rate climbed to 6.2%, the highest level this decade. Rates vary somewhat across the province with the highest rates in Calgary and the lowest rates in the Northwestern region. Alberta's rates continue to be higher than the Canadian average. The provincial target is to reduce the rate to 5.5% by 2002.

Tania Gravelle and her daughter, Kyla Tailfeather Gravelle, took part in the Chinook Health Region Better Beginnings Program. The RHA credits the Better Beginnings program, which provides food, vitamin/mineral supplements, education support and nutrition counseling, combined with other health initiatives, for successfully bringing down the number of low birth weight babies.

What causes low birth weight? It's a complex problem with many different factors involved. The most common factors are prematurity, fetal defects that may be inherited or caused by environmental factors, multiple births, acute or chronic diseases in the mother, and domestic violence or abuse. Lack of prenatal care, inadequate nutrition, poor living conditions, and lack of education are also often associated with low birth weight babies. Mothers who are younger than 17 or older than 35, those who are single mothers, and women with many children have a higher risk of having a low birth weight baby.

Mothers who consume alcohol or smoke during pregnancy are also more likely to have babies with low birth weight. The 1999 Maternal Risk Factor (MRF) study showed that 7.5% of mothers consumed alcohol during pregnancy (alcohol consumption ranged from one drink to considerably more) and 26% smoked throughout the pregnancy. 2.4% of the mothers in the study said they quit smoking during pregnancy. The rates of smoking in pregnant women vary considerably across the province's regions.

In vitro fertilization also has an impact on low birth weight, partly because multiple births are often involved. Almost 15% of the increase in low birth weight babies between 1994 and 1996 is a result of in vitro fertilization.

On the positive side, both prenatal visits and attending prenatal c
are related to healthier birth weight babies. The MRF study found
pregnant women over 25, virtually all had received 4 or more pre

Fetal Alcohol Syndrome (FAS) affects hundreds of children

Drinking alcohol while pregnant can lead to fetal alcohol syndr
related birth defects (FAS/ARBD). In Canada, it is considered th
cause of preventable birth defects and developmental disability i
While we don't know exactly how many children in Alberta are affected, it is estimated that 1,200 children in the care of Child Welfare suffer from this problem - and that's just a part of the total number.

FAS and ARBD put a severe strain on the affected children and their families, and are very costly to address. National estimates suggest that each child with FAS/ARBD may require as much as $1.5 million in special care and support during his or her lifetime.

Nurse Brenda Luco takes a blood sample for a metabolic screen from the foot of Kaylah Ukrainetz, 4 days old, while mom Judy Ukrainetz provides comfort. Metabolic disorders in infants are uncommon, but when present create problems with how a baby's body metabolism works. The disorders can be detected through a blood test done within a few days of birth. If these conditions go undetected and are not treated, they can cause brain damage.

Coping with birth defects

Birth defects - or congenital anomalies - are a major cause of infant mortality. They include a wide range of problems including heart malformations, deformities of the skeleton, and imbalances in body chemistry. They range from minor to very severe. Congenital anomalies were reported in 24% of the cases of stillborn babies and neonatal deaths in 1996. In 1994, Alberta's rate of deaths from congenital anomalies was higher than the national average.

What causes congenital anomalies? Few birth defects can be attributed to a single cause - most result from a combination of environmental factors and heredity. The most common causes identified include heredity, genetic abnormalities, infections, drugs and medicines, alcohol, smoking, malnutrition, and environmental effects.

Some steps can be taken to reduce the risk of congenital anomalies. Pre-conception screening for maternal infections and other conditions that may affect a baby in the first 8 weeks is one important step. Establishing good health habits before conception is another. For example, taking folic acid supplements

Did you know that cuddling babies helps wire their brains? Cuddling and stimulating infants does a lot more than make them smile. It actually helps "wire" their brains by connecting neurons into circuits that control a child's physical, emotional, and intellectual development for years to come. Neglecting or abusing a child in the first year of life has the opposite effect. Children who receive little care or nurturing in the early years may have brains that are wired for anxiety and fear – the seeds of aggression and a lack of emotional control in later life. This profound discovery has major implications for parents and policy-makers.

Growing Healthy Canadians, A Framework for Positive Child Development (1999), p. 1.

(one of the B vitamins) prior to conception can help reduce the risk of neural tube defects, like spina bifida and anencephalus.

Women who are planning to have a child and who do not know their rubella status should be tested or given rubella vaccine at least one month before conception to avoid the serious effects rubella can have on an unborn child. Typically, women with Rh-negative blood type should receive Rh antibodies to protect the health of an Rh-positive fetus.

Breastfeeding gives babies a healthy start

Breastfeeding is considered the best way of feeding babies. Benefits include providing all the baby's nutritional requirements, increasing protection against respiratory and gastrointestinal infections, and decreasing the incidence of asthma, eczema, and food allergies.

National data from the 1996/97 National Population Health Survey (NPHS) show that about 79% of all recently pregnant women breast-fed their babies. In Alberta, this figure was 85%. While this percentage is encouraging, we also know from the 1994/95 NPHS and the 1994/95 National Longitudinal Survey of Children and Youth that about 30% of mothers in the prairie region of Canada stop breastfeeding by 3 months. This is less than the recommended time for exclusive breastfeeding of at least the first 4 months of life.

Getting medical treatment

Nearly all children visit the doctor in the first year of life - on average, about 8 times. Most often, the visits are for general check-ups, but the second most common reason is for infections, usually in the throat, ear, eye or bowel.

Infants are hospitalized for a number of reasons. The most common are perinatal conditions like jaundice or low birth weight, congenital problems, and respiratory problems. Visits to the emergency room are most often for throat and ear infections and respiratory problems. Infant girls visit emergency rooms less often than infant boys. In 1995/96, 9,858 children less than one year of age visited an emergency room in the province.

GROWING UP HEALTHY

Children go through a lot of changes before they reach their teens. Here's a profile of some of the leading factors that affect their health.

Children need protection against communicable diseases

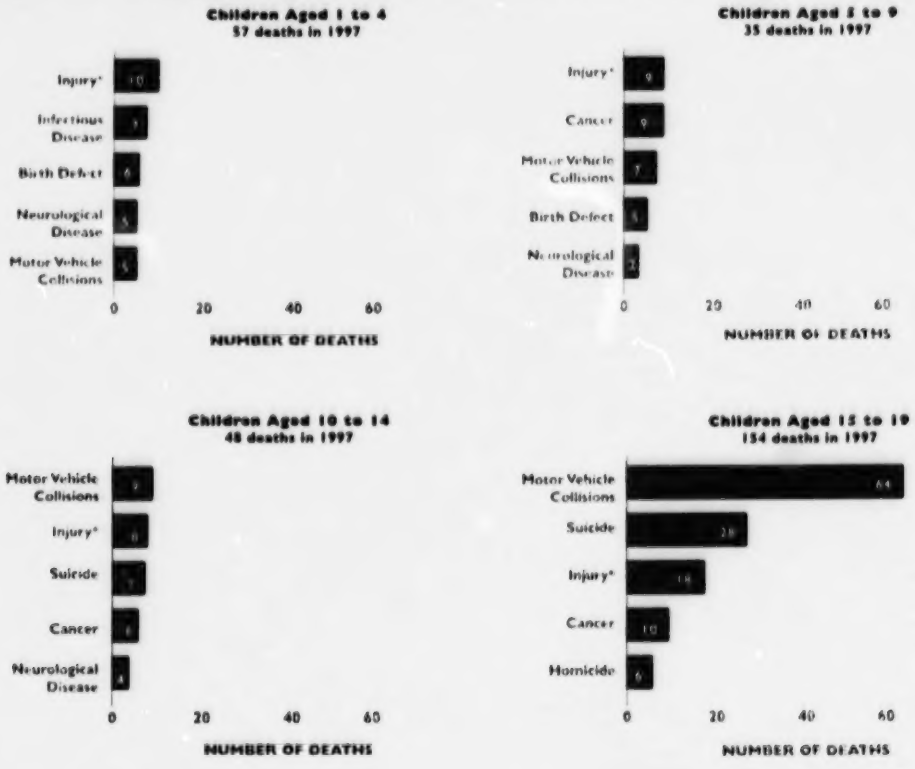
Since the 1940s, immunization against diseases like diphtheria, smallpox, polio, tetanus, measles, mumps, and rubella has dramatically reduced the number of children who get seriously sick from these diseases. Polio has been eliminated from the Americas, measles is close to elimination, and smallpox has been eradicated and is no longer a threat. But it's important not to get complacent. Alberta's immunization rates are high, but they're well below the provincial targets.

Preliminary 1998 information shows that 75% of children were immunized for diphtheria, tetanus and whooping cough. 83% of two-year-old children were immunized for measles, mumps, and rubella. Both are below their respective 97% and 98% targets. The number of cases of whooping cough declined in 1998. We don't know yet if that is due to the new vaccine introduced in 1997, or to a natural fluctuation in the incidence of the disease.

Why do children die?

In 1921, many children died from diphtheria, pneumonia, diarrhea, and violence. Today, not as many children die, and when they do it is not usually from infectious diseases. In 1997, a total of 294 children and youth aged 1 to 19 died. 52% of these deaths occurred in the 15-to-19-year-old age group, with nearly 75% being young men. The following charts tell the story. Children and youth were most likely to die from motor vehicle injuries, unintentional injuries (not including motor vehicle-related deaths), suicide, and cancer. Many of these deaths were preventable.

Causes of Death for Children Aged 1 to 19, 1997



* Excludes injury due to intentional causes and motor vehicle collisions.
Source: Alberta Vital Statistics (1998). 1997 Annual Report.

Sometimes kids get sick

And that often means a visit to the doctor. For children under 14, the most common reasons for visiting a doctor are infections - of the throat, ears or eyes - and respiratory problems. As children get older, up until they are about 15, the number of visits to a doctor drops from 7 a year to 4. Young people aged 15 to 17 visit a doctor about 6 times a year. Sometimes when children visit the doctor they are given a prescription for medication. And that can be a problem.

It's well accepted that at least 50% of antibiotics in general are inappropriately prescribed - and the vast majority of antibiotic prescriptions are for children.

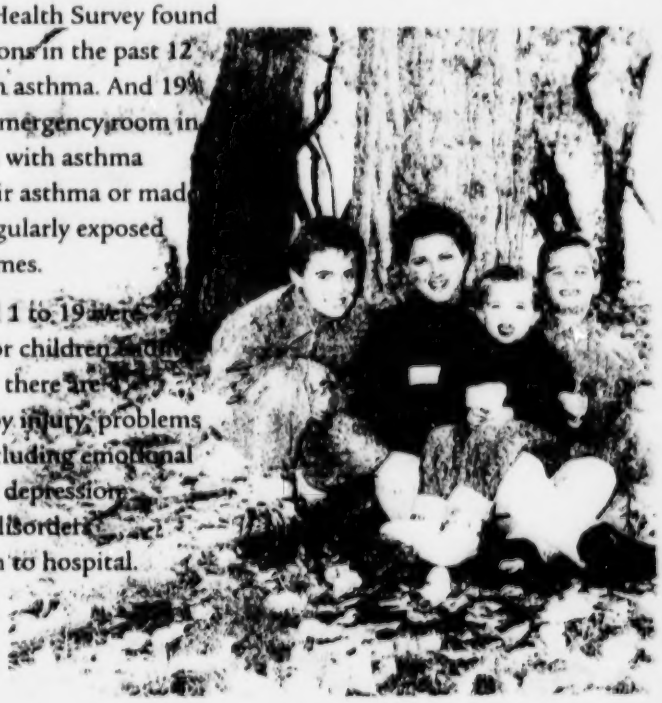
What's the problem? Children are being given antibiotics when they have infections that are caused by viruses. And antibiotics don't work on viruses - they're a weapon against bacteria. Instead, bacteria get exposed unnecessarily and learn to become resistant. Later they may cause infections that are untreatable. More importantly, the useful bacteria in our bodies adapt to the antibiotic and can pass on this ability to adapt to the more serious bacteria. Increasingly, we are seeing strains of bacteria that are resistant to the usual antibiotics.

On a related front, the concern with curbing development of antibiotic-resistant organisms led the Canadian Public Health Association to draft a resolution to control the use of anti-microbial soaps and other cleaning agents. It's the same logic. By trying to control too many bacteria, we are not looking downstream. Instead of providing protection, using such products encourages the development of resistant strains of bacteria - the bugs that can make us sick.

Overuse of antibiotics may pose one of the most serious threats of the next century. Dr. Edith Blondel-Hill, an infectious disease specialist, spearheaded a study program in Grande Prairie aimed at informing the public about the appropriate use of antibiotics, and the importance of hand washing. So far, the program has proven to be a great success. "I'm a mother of three boys," says Blondel-Hill, "and I don't want to see them live in a world where antibiotics are no longer useful."

Asthma is also a common illness in children. Research done in Alberta in 1995/96 shows that 7% of all students aged 5 to 19 were diagnosed with asthma. The 1995/96 national Student Lung Health Survey found 21% of the same age group had asthma-like conditions in the past 12 months although they had not been diagnosed with asthma. And 19% of students with diagnosed asthma had visited an emergency room in the past year. More than half of the school children with asthma reported that tobacco smoke either brought on their asthma or made it worse. In spite of that, 48% said that they were regularly exposed to second-hand smoke, most often in their own homes.

In 1997/98, 32,994 children and young people aged 1 to 19 were admitted to hospital. The most common reasons for children ending up in hospital will come as no surprise to parents - there are [illegible] respiratory problems are in the top spot, followed by injury, problems with the digestive system, and mental disorders, including emotional disturbances, attention deficit disorder (ADD), and depression. For young men and women aged 15 to 19, mental disorders ranked second to injury as the reason for admission to hospital.



Why do children have to go to emergency rooms? Most often, in younger children, it's for ear and throat infections, followed by injuries (open wounds, bruises, strains and sprains). Asthma and tonsillitis are also common reasons. For 10 to 14 year olds, the most common reasons are injuries, followed by throat and ear infections, asthma, and skin infections. The picture is similar for youth aged 15 to 17, except that for young women, abdominal and pelvic problems are ranked second behind injury.

A preliminary study of Alberta hospitalization data show that children in socioeconomically disadvantaged circumstances have considerably higher hospitalization rates than children in more advantaged situations.

Source: Alberta Health and Wellness (1999, preliminary data).

Injuries hurt

Children also are vulnerable to injuries. An Alberta study using 1995/96 data showed that over 24% of children had an injury that required some form of medical care, resulting in over 314,000 visits to a doctor. The cost of physicians' services alone was $11.6 million.

Boys were injured more frequently than girls, and the highest injury rates were for pre-school and teenage children. Aboriginal children and children in families receiving social assistance were more likely to experience an injury.

The 1994/95 National Longitudinal Survey of Children and Youth examined injury and found that over half of the injuries reported were cuts, scrapes, bruises, and broken bones. The top causes for injury were falls (excluding bicycles and sports) and sports injuries. Children were most likely to be injured inside their homes, inside a school or daycare or on the playground, or in their yards or driveways.

Mental health affects children too

The mental health of children is tied to the mental well being of the family and the environment to which they are exposed. Estimates from a preliminary 1995/96 Alberta study suggest that about 7% of children aged 9 to 13 have a mental disorder. The prevalence ranged from less than 1% in early childhood to 9.3% at age 17. The most common types of mental illnesses include depression, attention deficit hyperactivity disorder, emotional disturbances, neurotic disorders, psychoses, autism, and developmental delay.

Mental disorders emerge as a concern even for young children. For boys aged 5 to 9, mental disorders are the fifth leading cause of hospitalization. As age increases mental disorders move up in the rankings. For both boys and girls, mental disorders are ranked fourth for the 10 to 14 group and second for the 15 to 19 year olds as the reason for admission.

Attention deficit hyperactivity disorder is more common among boys than girls, but in both cases, it is more common in the early school years and less common in adolescence. Depression, anxiety and neurotic disorders, and reactive disturbances have similar patterns. All are more common in younger boys (less than 13 years) than younger girls and rates gradually increase with age. But these disorders do become more common in girls than boys after adolescence.

The 1995/96 Alberta study showed that the rate of mental disorders was twice the provincial average in children in families who were on social assistance. A 1998 Ontario study showed that single parents receiving social assistance had high rates of depression and other psychiatric disorders, and their children had higher rates of developmental delays and behaviour problems.

Child Abuse

Child abuse occurs when anyone mistreats or neglects a child, resulting in significant emotional or psychological harm, or serious risk of harm, to the child. It can take many forms and has lifelong consequences. Children who witness violence or are abused are more likely to be in violent relationships when they become adults. Although it's difficult to know how many people have been abused in their lives or how many children are abused in a single year, we do know that reports of suspected abuse are increasing and a number of children need protection.

In 1997/98, Alberta Family and Social Services reported that the Women's Shelter program provided protection for 5,212 women and 6,232 children. During the same time, 46,026 reports of child abuse were made, 31,464 investigations were conducted, and 13,693 cases were substantiated.

The National Clearinghouse on Family Violence notes the following facts. Child abuse is not confined to one social class or sector of the population. But economic disadvantages are a factor in child neglect. Poverty also appears

to be a risk factor for physical abuse. The most potentially serious cases of child abuse involve preschoolers and infants. These younger children have a greater risk of severe injury or death. The effects on a child are profound. Children who are abused tend to experience more social problems and perform less well at school. They are at greater risk of becoming violent criminals. A study of men in Canadian prisons showed that men who were abused as children were 3 times more likely to be violent as adults. Women abused in childhood were more likely to suffer from depression, low self-esteem, and suicidal thoughts.

ANSWERING SOME QUESTIONS ABOUT ALBERTA YOUTH

What do we know about the health of young people and things that affect their health? Not surprisingly, this is a time when young people's health can be at risk. And although the vast majority of young people are doing just fine, some are not.

The following provides some information about trends in the health of Alberta's young people.

Why do youth visit a doctor?

Most often, it is for throat infections – for both boys and girls. But problems related to puberty also come into play. For girls, menstrual problems are the second most common reason, acne is third, care during pregnancy is sixth, and viruses/chlamydia are eighth. For boys, acne ranks second, followed by strains and sprains, bronchitis and asthma, and emotional problems.

For both males and females, injuries are the most common reason for making a trip to the emergency room.

Are young people making healthy choices?

Most are, but a small percent are not.

A 1994 survey of youth in the central part of the province noted that the top 4 issues for youth were substance abuse, education, peer relationships, and sex. Their four top role models were parents or family members, athletes, friends and musicians. Most want their parents to be actively involved in their lives and most

see social interaction as the most positive part of school. Almost 89% said they felt safe at school and elsewhere.

School

Here is a brief snapshot of the challenges facing youth and the choices they are making.

Most young people are doing well in school. A 1996 Alberta High School Graduate Survey showed that 51% had grades in the 65% to 79% range and only 27% said they had grades below 65%. In the same survey, 63% said they planned to go on to post-secondary education the following year. Grade 12 students place a high value on higher education. Most of them said they were happy, hopeful, and healthy, and had positive self-esteem, but their lives seemed to be quite stressful.

Like many Alberta youth, Ramona Costa and Marty Weishaupt, are the picture of good health as they make the transition from adolescence to young adulthood.

Work

72% of grade 12 students had a part-time job in the previous year and 44% did volunteer work. 65% said they thought it would be harder for people in their generation to live as comfortably as the previous generation.

Teen pregnancy and birth

Alberta's teenage pregnancy rate has been relatively constant from 1990 to 1997, at about 12 pregnancies per 100,000 girls aged 10 to 17 per year.

In 1997, 861 babies were born to young women between the ages of 13 and 17 (there were no births to mothers under age 13). The rate at which adolescents give birth has declined since 1991 in all ages groups (under 15, 15 to 17, and 18 to 19). However, Alberta's teen birth rates have tended to be higher than the national average.

Drinking alcohol

The legal drinking age in Alberta is 18. Yet an Alberta Alcohol and Drug Abuse Commission (AADAC) study showed 55% of youths aged 12 to 17 had consumed alcohol at least once in the previous year. The proportion of young men and women drinking alcohol was quite similar, but males reported drinking larger quantities. Fortunately, this same study showed most teenagers did not drink alcohol very often (less than once a month). However, 7% reported drinking once a week or more.

Gambling

Other than for Bingo where halls set age limits, the legal age of gambling in Alberta is 18. However, a 1995 AADAC survey found that about 67% of youth aged 12 to 17 reported gambling in the previous year. Within this group, 15% seemed to be at risk for developing gambling problems, and 8% were considered problem gamblers. The prevalence of problem gambling for this group is a lot higher than the adult rate.

There is a marked increase in smoking as young people move from the 15 to 17 year age group to the 18 to 19 year age group.

Source: National Population Health Survey Highlights (Jan. 1999). Smoking Behaviour of Canadians – Profile of Youth Aged 15-19, p. 1.

Smoking and smokeless tobacco

The percentage of young people who smoke fell significantly in the 1970s and '80s, but in the 1990s, the rates are climbing. In 1995, AADAC reported that 30% of children aged 12 to 17 reported using tobacco products one or more times in the previous year, and 17% were daily users. Results from the 1996 General Social Survey show that young Alberta women aged 15 to 24 were among the heaviest smokers in Canada. 48% of this age group were current smokers in 1996, up from 29% in 1990.

Canadian data from the 1996/97 National Population Health Survey show a disturbing trend for both male and female youth. There is a marked increase in smoking prevalence as young people move from the 15 to 17 year age group to the 18 to 19 year age group.

Smoking is more common among Aboriginal young people. A 1991 review of smoking among Canadian Aboriginal people estimated that 54% of Aboriginal teens smoke.

Use of smokeless tobacco is most common among young males in rural Alberta. Rates among teens in Alberta are double the national average: 20% have tried chewing tobacco or moist snuff, and 7% have tried dried snuff.

We know that teens say they start smoking partly because of peer pressure and curiosity. And of course, advertising has played a role. However, we also know that almost no one starts smoking after age 20. In Alberta, strategies are being developed taking these facts into account.

Suicide

Suicide is a serious problem for our youth. In 1997, 28 boys and 7 girls between the ages of 10 and 19 committed suicide. National data noted in *Toward a Health Future: Second Report on the Health of Canadians* (1999) suggest that suicide rates are much higher for Aboriginal youth than for the general population.

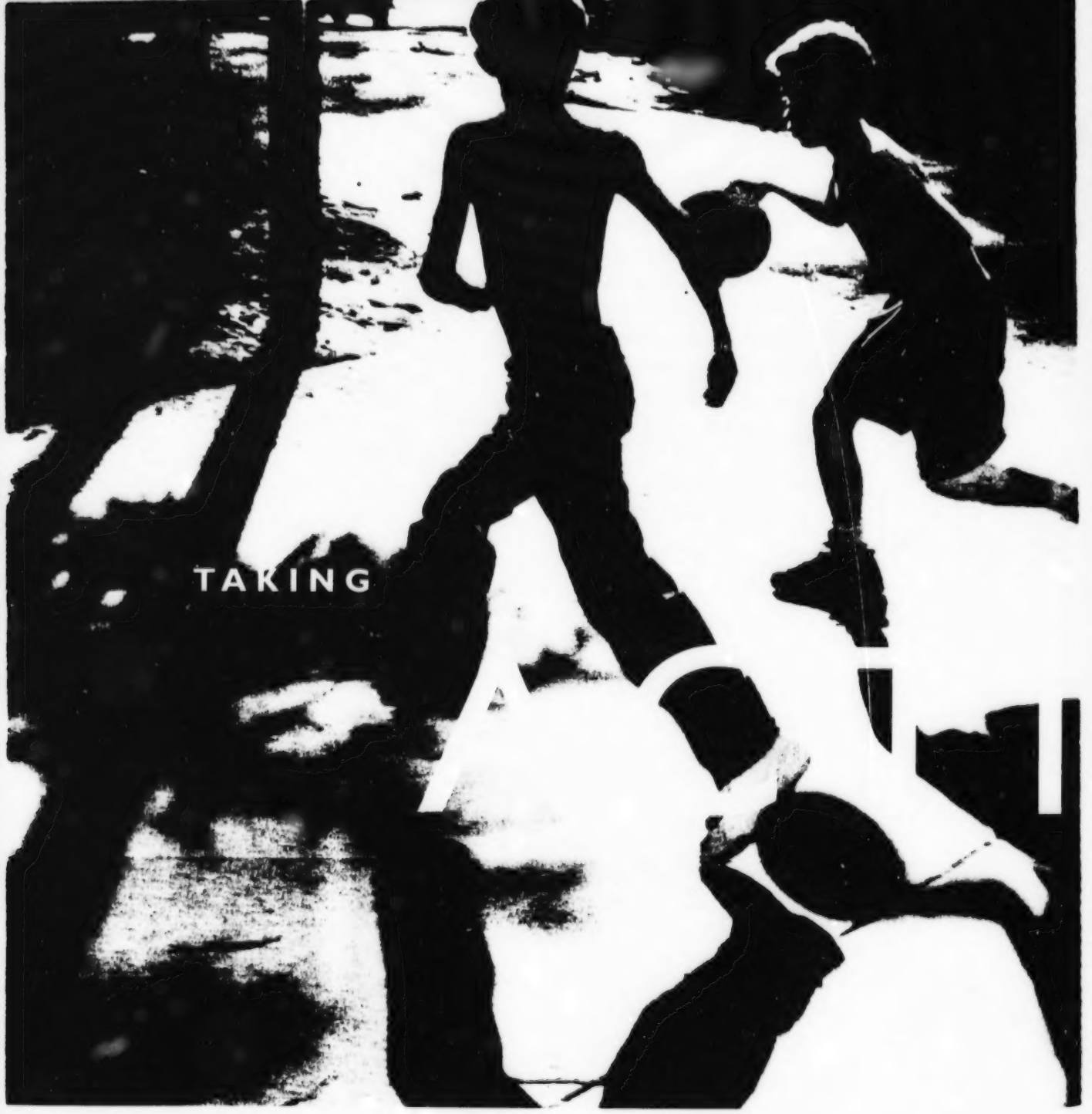
Youth crime

In Alberta, 25% of all criminal charges involve youth. Serious violent crime accounts for only 9% of charges against youth, and fortunately, the rate of violent crime is decreasing. However, Alberta's rates for violent and property crimes committed by youths still remain above the national rate. Other charges in this category involve mischief, minor assault, and other crimes. In 1997/98, 558 violent offences and 1,275 property offences were reported for Alberta youths. The vast majority involved males.

The rate of cases in youth court dropped by 26% between 1992/93 and 1997/98 - the largest drop in Canada. The reason for the drop is in part due to alternative measures used to deal with youth offenders. Alternative measures are formalized programs across Canada in which young persons who would otherwise proceed to court are dealt with through non-judicial, community-based alternatives. Typical programs include personal service to a victim, financial compensation to a victim, community service, educational sessions, personal or written apologies, and essays or presentations related to the offence.

The rate of cases in youth court dropped by 26% between 1992/93 and 1997/98 – the largest drop in Canada. The reason for the drop is in part due to alternative measures used to deal with youth offenders.

Source: Juristat: Youth Court Statistics 1997-1998, 19(2),p 14.


TAKING

Looking through a wider lens at the health of Albertans leads us to ask, "What's being done and what can be done in the future to address these health issues?"

ON

Health is everyone's business. Everyone can contribute to community health, from taking care of one's personal well being to looking after the health of family and friends to participating in wider initiatives directed towards healthy communities. As we have seen in earlier parts of this report, many factors that determine health go well beyond the traditional health system. It takes all of us to make a difference. Other sectors like education, finance, justice, housing, recreation, environment, employment, transportation, and social services all have roles to play in improving health.

A number of actions are underway to address a variety of long-term health issues identified in this report. Actions are being taken at the provincial level, in every health region of the province, in schools, in communities, and in the workplace.

Here are some examples.

On children's health...

- The Alberta Children's Initiative has set out an agenda for action. Work is underway in the areas of children's mental health, children with special health needs in schools, children involved in prostitution, children with FAS/ARBD, and prenatal and early childhood development.
- A province-wide initiative is underway to ensure that all newborns are screened for metabolic disorders at birth to avoid future health problems.
- Several long-term studies are underway looking at maternal risk factors, low birth weight babies, and congenital anomalies.
- All children are being offered vaccine for Hepatitis B.
- New curriculum programs are being prepared in health, life skills, and physical education, for kindergarten to grade 12, which emphasize the importance of a healthy, active lifestyle. As well, job safety skills are being incorporated into several new courses that prepare students for the workplace.
- The Alberta Child Health Benefit offers children in low income families coverage for basic medical services, including dental, optical, and emergency ambulance, as well as prescription drugs and essential diabetic supplies.
- The Alberta Children's Forum held in October 1999 provided a focus on a range of health issues, including early childhood brain development, FAS/ARBD, injury, peer pressure, and sexuality.

On injury...

- The Alberta Centre for Injury Control and Research has a provincial mandate for injury control and is taking the lead on a number of injury initiatives.
- Injury prevention strategies like "Think, Think Again," a child restraint program targeted at improving child passenger safety, are underway.
- Alberta Agriculture, Food and Rural Development is taking a pro-active approach to injury prevention training, education, and awareness through its Farm Safety Program.
- Alberta Human Resources and Employment is taking a lead role in the prevention of workplace injuries and illnesses. Key strategies include establishing a program to support safe workplaces; providing appropriate legislation, regulation and compliance, and enforcement programs; and working to increase awareness about workplace hazards.

On tobacco use...

- The Alberta Tobacco Reduction Alliance is implementing a comprehensive plan to address tobacco issues and reduce tobacco use. A "Truth about Tobacco" campaign is part of the strategy.

On environmental health...

- A review of health issues related to intensive livestock operations is underway and so is an evaluation of the potential impacts of growth in livestock production.

- The Oldman River Basin Water Quality study will provide a detailed assessment of the quality of water, including pesticide, herbicide, and fungicide levels.
- A long-term water-quality monitoring program, based on representative small streams in agricultural areas, has been developed and is being implemented.
- Alberta Health and Wellness, Alberta Agriculture, Food and Rural Development, and the Canadian Food Inspection Agency have formed a partnership to coordinate responsibilities in food safety and inspection. The focus of this partnership will include education and training in food safety, and emergency preparedness and response.
- The Alberta Energy and Utilities Board is implementing a proposal developed by the Clean Air Strategic Alliance (CASA) to reduce solution gas flaring by 15% by the end of 2000 and by 40% to 50% by 2003.
- Climate Change Central is planning to outline how Albertans will address the issue of climate change and the impact of greenhouse gas emissions, while ensuring that economic and social progress continues.

On longer term health issues...

- Plans are underway to expand screening for breast cancer and cervical cancer.
- A number of health promotion and prevention programs are underway and new ones are being developed.
- An HIV strategy for Aboriginal communities is being developed in conjunction with Health Canada Medical Services Branch, Alberta Health and Wellness, and Aboriginal agencies. HIV prevention programs targeted to young people have been developed. And pregnant women are routinely screened for HIV.
- A Pharmacy Information Network is being built by **alberta wellnet** and health care providers. The network will support better communication among physicians, pharmacists, and other health providers and help enhance health outcomes.

Much remains to be done. Information in this report points to the following priority areas for action: tobacco use, injuries, children's health, and environmental health. People should check with their regional health authority, with schools and with the business plans of various government departments to see what actions are being taken to improve health. In future reports, we'll track the success of a number of those initiatives and see what impact they're having on improving the health of Albertans.

WANT MORE INFORMATION?

A list of the major references used in each section of the report is provided for those who wish to explore further.

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Acknowledgement

To the Glenbow Library - Several entries in the timeline are based on information found in "This Week in History", one of the on-line resources provided by the Glenbow Library (www.glenbow.org).